CONTENTS OF SUPPLEMENT.

PERSONAL 17
Obituary 17
ENGINEERING SOCIETIES 18
Coming Technical Meetings 18
CONSTRUCTION NEWS:
Condensed List of Contracts Pending 19
Railways 19
Street and Electric Railways 19
Electric Light and Power 20
Bridges 21
Buildings 21
Water-Works 22
Irrigation 22
Sewerage 23
Garbage Disposal and Street Cleaning 23
Streets and Roads 23
Manufacturing Plants 23
Gas Plants 23
Miscellaneous Contracts 23
Contract Prices 24
INDUSTRIAL NOTES. 24

PERSONAL.

Mr. Robert C. Fenton has been appointed City Engineer of Willimantic, Conn.

Mr. Thomas McKean has been elected President of the North Pennsylvania R. R.

Mr. Samuel Gibbs French, Jr., civil engineer, of Orlando, Fla., was married Jan. 12 to Miss Edith Duer, of that city.

Mr. J. A. Morris has been elected Vice-President of the Board of Water Commissioners of Atlanta, Ga., to succeed Mr. Aaron Haas.

Mr. Joseph S. Harris has been elected President, and Mr. John S. Wise, Secretary and Treasurer of the Northeast Pennsylvania R. R.

Mr. Frank V. E. Bardol, formerly an Assistant Engineer in the Bureau of Engineering of Buffalo, N. Y., has been appointed City Engineer.

Messrs. Carrere & Hastings, architects, of New York city, have been appointed Consulting Architects to the New East River Bridge Commission.

Mr. Arthur Hale has been appointed Superintendent of Telegraph of the Pennsylvania R. R. He is a son of Dr. Edward Everett Hale, of Boston.

Col. B. H. Corning, Superintendent of the Littleton Water & Light Co., Littleton, N. H., has resigned. Mr. Henry F. Green has been appointed to succeed him.

Mr. C. B. Van Nostrand, President of the New Orleans & Western R. R. and Port Chalmette Terminal, has been appointed Receiver of the same, his office remaining at New York.

Mr. Robert H. Sayre, Second Vice-President of the Lehigh Valley R. R., with headquarters at South Bethlehem, Pa., has resigned and has been appointed Assistant to the President.

Mr. A. G. Morton, Civil Engineer, of Cincinnati, O., has been appointed Assistant Division Engineer of the Baltimore & Ohio Southwestern Ry., with headquarters at Washington, Ind.

Mr. H. M. Comer, President of the Central of Georgia Ry., has been elected President of the Columbus Power Co., Columbus, Ga., and Mr. G. Gunby Jordan has been elected Treasurer.

Mr. C. H. Strong has been elected President, Mr. M. H. Taylor, Vice-President, and Mr. William Brewster, Secretary and Treasurer of the Erie & Pittsburg R. R., with offices at Erie, Pa.

Mr. James Meehan has been appointed Superintendent of Motive Power and Machinery of the South Carolina & Georgia R. R., with headquarters at Charleston, S. C., succeeding Mr. J. H. Green.

Mr. George W. Engle, Assistant Chief Civil and Mining Engineer, of the Lehigh Coal & Navigation Co., at Lansford, Pa., has resigned to accept a similar position with the Delaware & Hudson Coal Co., at Scranton, Pa.

Mr. Emerson W. Grant, M. Am. Soc. C. E., of Carrolton, Mo., has been appointed Resident Engineer of the New Mexico and Rio Grande Division of the Atchison, Topeka & Santa Fe Ry., with headquarters at Las Vegas, N. Mex.

Mr. F. H. Mudge has been appointed Resident Engineer of the Western Division and that portion of the Middle Division west of Hutchinson, Kan., of the Atchison, Topeka & Santa Fe Ry., with headquarters at Pueblo, Colo., succeeding Mr. J. M. Meade, transferred.

Civil Engineer A. G. Menocal, U. S. Navy, M. Am. Soc. C. E., has been ordered back from Nicaragua, where he is at present with the Nicaragua Canal Commission, on account of the investigation into the failure of the dry dock in the New York Navy Yard, built under his supervision.

Mr. J. M. Meade, Second Vice-President of the Road Masters' Association of America, has been appointed Resident Engineer of the Eastern Division and that portion of the Middle Division east of Hutchinson, Kan., of the Atchison, Topeka & Santa Fe Ry., with headquarters at Topeka, Kan.

Mr. C. W. McMeekin, M. Am. Soc. C. E., Chief Engineer of the Iowa Central Ry., has resigned that position to accept one as assistant to Mr. Chester B. Davis, M. Am. Soc. C. E., in conducting investigations for a water power system for the Anaconda Copper Mining Co., Anaconda, Mont. It is expected that about 15,000 HP. can be developed.

Lieut.-Commander Daniel Delehanty, U. S. Navy, has been appointed Governor of Sailors' Snug Harbor, New York city. He is the inventor of the self-dumping garbage scow used by the city of New York, and was a member of a commission appointed by Mayor Gilroy to investigate and report on the best method of disposing of the city's refuse.

Mr. Arthur J. Cox, of the Iowa Engineering Co., Clinton and Iowa City, Ia., is making a tour of the South for the purpose of inspecting plans and methods of city improvements. He will visit New Orleans, Mobile and Savannah and on Feb. 1 will go to Laurel, Miss., to take charge of a railway survey for the Laurel & Northwestern R. R.

Mr. W. H. Earle, Resident Engineer of the Atchison, Topeka & Santa Fe Ry., with headquarters at Newton, Kan., has been assigned to the Oklahoma Division, with office at the same place, and Mr. M. N. Wells, Resident Engineer, with headquarters at Chanute, Kan., has been assigned to the Southern Kansas Division, office remaining at the same place.

Mr. Geo. H. Thomsom, M. Am. Soc. C. E., of New York city, has been appointed Consulting Engineer to the Honduras Railroad Syndicate. The road at present consists of about 60 miles of narrow gage track, extending from Puerto Cortes to La Pimiento. It is intended to change the road soon to standard gage, and probably to extend it to Gulf Fonseca. Mr. A. R. T. Lackie is Chief Engineer.

Mr. L. Netland, President of the Elkhorn-Alaska Gold Mining & Development Co., of Elkhorn, W. Va., will leave the Pacific coast for Juneau, Alaska, in time to reach there early next March. He is a civil and mining engineer of large experience in this country and in Norway, and will lead the first expedition sent out by his company, which will conduct a general trading and mercantile business besides prospecting for gold and buying mining claims. The party will attempt to cross the Chilcoot Pass on Norwegian snow-shoes.

Mr. Lewis B. Jackson, M. Am. Soc. C. E., formerly City Engineer of Chicago, Ill., has been awarded a verdict of $20,000 damages in his suit against Mr. Alexander Prussing, Secretary of the Wecklar-Prussing Brick Co., for libel, which is said to have consisted in the latter publishing a statement in March, 1896, alleging that Mr. Jackson was using his influence to further the advancement of a proposed ordinance prohibiting the use of brick in sewer ...ding and providing for the substitution of concrete. It was further alleged in the article referred to that a fund of 100,000 had been raised to secure the passage of the bill, and that the city engineer would be duly remembered in the distribution of the money. The defendant will move for a new trial.

Messrs. Warren L. Murray, Auditor, and Gardner W. Kimball, of the Accounting Department of Westinghouse, Church, Kerr & Co., New York, were tendered a farewell dinner by the engineering force of the company, Jan. 5, owing to the removal of the above department from New York to the Pittsburg office of the firm. There were 21 present. Mr. Walter C. Kerr, Vice-President, presided, and Mr. Otis L. Williams, Treasurer, was the Toastmaster. The bill of fare had been arranged by several members of the engineering force, who substituted mechanical for the usual French terms, to the amusement and in some cases to the consternation of their brother engineers. Mr. Kerr, in a few remarks, expressed his pleasure at meeting the force in this form for the first time, and suggested that a dinner annually, or perhaps more frequently, would be a good idea. Mr. Murray has been in the employ of Westinghouse, Church, Kerr & Co. for 15 years, and Mr. Kimball nearly as long, and the New York office felt great regret at their leaving. A number of presentations were made to the two departing guests as tokens of esteem from the fellow employees.

OBITUARY.

Mr. Charles E. Adams, Contractor, of Auburn, N. Y., died Jan. 10, aged 34.

Mr. Warren Marsh, formerly a contractor, died suddenly at his home in Plainfield, N. J., Jan. 12, aged 74.

Mr. Chauncey Leland Harris, civil engineer and journalist, of Detroit, Mich., died recently at Butte, Mont., aged 55.

Mr. Joseph J. Boyce, President of the Long Island Machine Construction Co., of Long Island City, N. Y., died Jan. 13.

Mr. R. Ramsay, Superintendent of the Chicago, Milwaukee & St. Paul mines at Braceville, Ill., died there Jan. 16.

Mr. David Hall, a pioneer iron manufacturer of the Mahoning Valley, died at his home, Hubbard, O., Jan. 9, aged 57.

Mr. Jacob G. Neafie, President of the Neafie & Levy Ship & Engine Building Co., of Philadelphia, Pa., died Jan. 16, aged 82.

Mr. William Metcalf, some 25 or 30 years ago one of the best known architects, builders and contractors of Utica, N. Y., died at Claremont, Cal., Dec. 28, aged 71.

Mr. Rudolph Boericke, mechanical engineer, with the Texas Briquette & Coal Co., Rockdale, Tex., died Dec. 25, 1897. He was a member of the Engineers' Club of Philadelphia, Pa.

Mr. Lucien D. Fowler, Chief Engineer of the Water Department, Jersey City, N. J., died Jan. 13 at his home, Jersey City Heights, from neuralgia of the heart, resulting from a cold contracted on Dec. 25 while superintending the repairs to a broken main near Belleville. He was at his office on Jan. 10. He was 49 years of age and had been in the employ of the department since 1871. He was appointed Chief Engineer in October, 1897.

Mr. James M. Howard, for many years Roadmaster of the Rutland & Washington Division of the Delaware & Hudson Canal Co.'s R. R., died at Concord Junction, Mass., Jan. 6, aged 69. He had recently been in the employ of the Fitchburg R. R.

Mr. Charles B. Chester, Master Mechanic of the Guatemala Central Ry., Central America, died at his home in Chattanooga, Tenn., Jan. 8, aged 47. In 1894 he resigned as Master Mechanic of the Chattanooga, Rome & Columbus R. R. and went to Guatemala.

Prof. John H. Haldeman, who was Principal of the Department of Observation of the State Normal School, Westfield, Mass., from 1869 to 1889, died Jan. 14, at Marietta, Pa., aged 65. He devoted much time to scientific research and mechanics and made several valuable inventions.

Sir Charles Hutton Gregory, Past President of the Institution of Civil Engineers, of London, England, died Jan. 10. He was born in Woolwich in 1817, and his father was Dr. Olinthus Gregory, Professor of Mathematics at the Royal Military Academy, Woolwich. He had been chief or consulting engineer on many important works, among others the construction of railways in Ceylon, Trinidad and the Cape of Good Hope. In 1882 he was made a member of the Channel Tunnel Committee and in 1886 was one of the Royal Commissioners of the Colonial and Indian Exhibition in London.

Mr. Melville C. Smith, who was for more than a quarter of a century identified with rapid transit plans for New York city, died there Jan. 12, aged 64. In 1868 he succeeded in having a bill introduced in the New York Legislature providing for an arcade underground road for Broadway, but it was not until 1886 that he succeeded in getting a charter for it. The Court of Appeals declared the act unconstitutional after the capital had been secured and contracts let; but Mr. Smith still continued to work for the project, endeavoring to aid the Rapid Transit Commissioners in its consummation.

Maj. Benjamin Butterworth, Commissioner of Patents, died at Thomasville, Ga., Jan. 16. He was born in Warren County, Ohio, Oct. 22, 1822, and graduated from the Cincinnati Law School in 1861. He enlisted in the Union Army in the Civil War and retired with the rank of Major. In 1871 he was appointed U. S. District Attorney and in 1873 and 1874 was a member of the Ohio State Senate. He was elected to Congress in 1878 and in 1883 was appointed a commissioner to examine a part of the Northern Pacific R. R., by President Arthur. Maj. Butterworth was appointed U. S. Commissioner of Patents on Sept. 1, 1883, and in 1884 was again elected to Congress. After his service in the Patent Office he built up a large and lucrative business as a patent attorney. President McKinley appointed him Commissioner of Patents again on April 1, 1897. One of the most commendable and noteworthy acts of his life is now fresh in public memory—the weeding out of the lists of patent solicitors, and the disbarment from practice of some of those guilty of notoriously fraudulent practices. The whole country owes a debt of gratitude to Mr. Butterworth's memory for his bravery and zeal in this work, which was carried out in the face of powerful influences exerted by those who profited by the dishonest practices.

Mr. Burr Kellogg Field, M. Am. Soc. C. E., Vice-President of the Berlin Iron Bridge Co., East Berlin, Conn., died at his home in Berlin, Conn., Jan. 13, after an illness of less than a week. His death was so sudden that few of his friends were aware that he was ill. He was born in Auburn, Ind., May 5, 1856, and entered the Sheffield Scientific School, Yale University, New Haven, Conn., in 1874, graduating in 1877 as a civil engineer. Immediately after graduation he commenced practical work on the railways of the West, being connected with the Department of Track, Bridges and Buildings of the St. Louis & South Eastern R. R. as Track Foreman from March to September, 1878. He was rodman on surveys in New Mexico and Colorado for the Denver & Rio Grande R. R. until January, 1879, and was rodman on the construction of the Omaha extension of the old North Missouri R. R. until August, 1879, and on the construction of the Wichita extension of the St. Louis & San Francisco Ry. until March, 1880. From that time until February, 1882, he was Assistant Engineer on the St. Louis & San Francisco R. R. in Arkansas and Indian Territory, both on construction and surveys, and from February, 1882, to November, 1883, was an Assistant Engineer on the Northern Pacific R. R. He was in charge of construction on the Yellowstone Division of the Northern Pacific from February to May, 1882, and in March, 1883, was made Engineer in charge of track and bridges on the construction of National Park Branch (52 miles long) of the Northern Pacific R. R., holding this position until the following November. On Jan. 17, 1884, he was appointed Superintendent of Bridges in the Highway Department of the City of Philadelphia, which position he held for something over a year, when he resigned to accept a position as Assistant Engineer of the Berlin Iron Bridge Co. His advancement in this company has been very rapid, and at the time of his death he occupied the position of Vice-President with general charge of all the sales. Since his connection with the company its business has been much extended and

its sales have increased rapidly from year to year. He had no small part in making the reputation which the Berlin Iron Bridge Co. now enjoys, and his death will be a severe loss to his associates. He was an indefatigable worker, not only for the company which he had so faithfully served, but in everything he undertook. His pleasing manner and his frankness and square dealing gave him an enviable reputation among the manufacturing companies of the country, and won him friends everywhere. He is survived by a wife and two young children.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

CHICAGO ELECTRICAL ASSOCIATION.
Jan. 21. "The Art of Constructing Telephone Apparatus," Henry P. Clausen. Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.
INDIANAPOLIS ENGINEERING CLUB.
Jan 22. Secy., Edson F. Folsom, Indianapolis, Ind.
WISCONSIN POLYTECHNIC SOCIETY.
Jan. 25. Secy., W. K. Means, Loan & Trust Bldg., Milwaukee, Wis.
NATIONAL ASSOCIATION OF MANUFACTURERS OF THE UNITED STATES.
Jan. 25-27. Annual convention, New York city. Secy., Charles E. Locke, Philadelphia, Pa.
ILLINOIS SOCIETY OF ENGINEERS AND SURVEYORS.
Jan. 25 to 28. Annual meeting, at Peoria, Ill. Secy., Jacob A. Harman, Peoria, Ill.
FRANKLIN INSTITUTE.
Jan. 25. "Magnetic Ore Separation," Lewis G. Rowand.
Feb. 9. "The Practical Aspect of Present Methods of Testing Iron and Steel," Paul Kreuzpointner, Secy., Wm. H. Wahl,15 S. Seventh St., Philadelphia, Pa.
THE WEST VIRGINIA SOCIETY OF CIVIL ENGINEERS AND ARCHITECTS.
Jan. 26. Annual meeting, Morgantown, W. Va. Secy., Wm. Steenbergen, Point Pleasant, W. Va.
AMERICAN FOUNDRYMEN'S ASSOCIATION.
Jan. 26. Annual meeting, New York city. Secy., John A. Penton, Buhl Block, Detroit, Mich.
AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.
Jan. 26. Secy., R. W. Pope, 26 Cortlandt St., New York city.
ENGINEERING ASSOCIATION OF THE SOUTH.
Jan. 27. Secy., C. B. Wilson, Nashville, Tenn.
SCRANTON ENGINEERS' CLUB.
Jan. 27. "Flying Machines," E. W. Roberts. Secy., H. W. Rowley, Scranton, Pa.
ENGINEERS' CLUB OF ST. LOUIS.
Feb. 2. Secy., Richard McCulloch, St. Louis, Mo.
AMERICAN SOCIETY OF CIVIL ENGINEERS.
Feb. 2. Secy., C. W. Hunt, 220 West 57th St., New York city.
CANADIAN SOCIETY OF CIVIL ENGINEERS.
Feb. 3. Secy., C. H. McLeod, 112 Mansfield St., Montreal, Canada.
BROOKLYN ENGINEERS' CLUB.
Feb. 3. Secy., A. J. Provost, Jr., 191 Montague St., Brooklyn, N. Y.
TECHNICAL SOCIETY OF THE PACIFIC COAST.
Feb. 4. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.
THE ENGINEERS' CLUB OF PHILADELPHIA.
Feb. 5. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.
CIVIL ENGINEERS' SOCIETY OF ST. PAUL.
Feb. 7. Secy., C. L. Annan, City Engineers' Office, St. Paul, Minn.
ENGINEERS' SOCIETY OF WESTERN NEW YORK.
Feb. 7. Secy., H. J. March, Library Bldg., Buffalo, N. Y.
DENVER SOCIETY OF CIVIL ENGINEERS.
Feb. 8. Secy., Walter Pearl, 36 Jacobson Bldg., Denver, Col.
CIVIL ENGINEERS' CLUB OF CLEVELAND.
Feb. 8. Secy., Wm. H. Searles, Case Library Bldg., Cleveland, O.
NORTHWEST RAILWAY CLUB.
Feb. 8. Secy., T. A. Fogue, Soo Line, Minneapolis, Minn.
NEW ENGLAND RAILROAD CLUB.
Feb. 9. Secy., Edward L. Jones, P. O. Box 1158, Boston, Mass.
ST. LOUIS RAILWAY CLUB.
Feb. 11. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.
MONTANA SOCIETY OF ENGINEERS.
Feb. 12. Secy., Albert S. Hovey, Helena, Mont.
ENGINEERS' CLUB OF KANSAS CITY.
Feb. 14. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo.
ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.
Feb. 15. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.
WESTERN RAILWAY CLUB.
Feb. 15. Secy., F. M. Whyte, 225 Dearborn St., Chicago, Ill.
BOSTON SOCIETY OF CIVIL ENGINEERS.
Feb. 16. Secy., S. E. Tinkham. City Hall, Boston, Mass.
WESTERN FOUNDRYMEN'S ASSOCIATION.
Feb. 16. Secy., A. Sorge, Jr., 1020 Monadnock Block, Chicago, Ill.
ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
Feb. 16. Secy., Frank H. Olmsted, Los Angeles, Cal.
SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
Feb. 17. Secy., F. A. Charpiot, Macon, Ga.
ENGINEERS' CLUB OF CINCINNATI.
Feb. 17. Secy., J. F. Wilson, P. O. Box 333, Cincinnati, O.
NEW YORK RAILROAD CLUB.
Feb. 17. Secy., W. W. Wheatly, 168 Montague St., Brooklyn, N. Y.
ENGINEERS' CLUB OF COLUMBUS.
Feb. 19. Secy., M. S. Hopkins, 14½ N. High St., Columbus, O.
TECHNICAL CLUB OF OMAHA.
Feb. 21. Secy., J. Harry Lawrie, Omaha, Neb.
ENGINEERS' CLUB OF MINNEAPOLIS.
Feb. 21. Secy., Elbert Nexsen, 1620 S. E. 4th St., Minneapolis, Minn.

FAIRBANKS ENGINEERS' ASSOCIATION.—The annual meeting of this association was held Jan. 11 in Dover, N. H., and the following officers were elected for the ensuing year: Pres., Charles E. Philbrick; Vice-President, John Cummings; Rec. Secy., Ernest L. Viles; Cor. Secy., Burnham Hanson; Fin. Secy., F. L. Knowlton; Treas., Henry Pierce.

BUFFALO BUILDERS' EXCHANGE.—The annual election of officers of the Builders' Exchange, Buffalo, N. Y., was held Jan. 15, and resulted as follows: Pres., Edward M. Hager; Vice-President, John W. Henrich; Treas., F. F. Coppins; Secy., J. C. Almendinger.

THE INDIANA ENGINEERING SOCIETY.—At the annual convention, held at Indianapolis, Ind., Jan. 4-6, the list of papers given in our issue of Dec. 30 was read. All of these will be published in the proceedings of the Society.

J. W. Trotter, Danville, Ind., was elected President, and James B. Nelson, Indianapolis, Ind., was re-elected Secretary. Jas. B. Nelson, Secy.

DENVER SOCIETY OF CIVIL ENGINEERS.—The annual election of officers was held Jan. 11, and the following officers were elected: President, R. A. Wilson; First Vice-President, A. L. Fonda; Second Vice-President, Howard Breen; Secy. and Treas., Wm. B. Lawson; Librarian, F. Cogswell; Executive Committee, Howard Breen, J. W. Nesmith and Walter Pearl. The paper of the evening, "Good Roads," was presented by R. A. Wilson.

SCRANTON ENGINEERS' CLUB.—This club held its annual meeting Jan. 13 at Scranton, Pa. The meeting and election were followed by a banquet, at which appropriate toasts were responded to.

The following officers were elected for the ensuing year: Pres., C. D. Blackington; Vice-President, W. M. Marple; Secy., H. W. Rowley; Treas., A. H. Storrs; Librarian, A. E. Lisler; Directors, James Archbald, Capt. W. F. May, C. C. Rose.

CANADIAN SOCIETY OF CIVIL ENGINEERS.—The 10th annual meeting of the Canadian Society of Civil Engineers convened in Montreal Jan. 11. The report of the council showed a membership of 628 civil engineers. The morning of the first day was devoted to routine business and an excursion to the Chambly Mfg. Co., at Richelieu. On the way an inspection was made of the Victoria bridge. The election resulted as follows: Pres., W. G. McN. Thompson; Vice-Presidents, F. W. Blackwell, P. W. St. George, H. D. Lumsden; Treas., A. Irwin; Secy., C. A. McNab.

BROOKLYN ENGINEERS' CLUB.—At the meeting of Jan. 6 Mr. Albert S. Crane presented a paper on the "Filtration of Sewage," in which he described the methods used and the results obtained with artincial filters as developed by W. J. Dibdin, late chemist to the London County Council, and in operation at Barking, Sutton, Exeter, etc. The success with which crude sewage is liquefied by bacterial action in the so-called septic tanks was also described, and plans of the various works, analytical results and samples of effluents from both filter beds and septic tanks were submitted for inspection.

A. J. Provost, Jr., Secy.

ENGINEERS' CLUB OF CINCINNATI.—The 10th annual meeting of this club was held on Dec. 23. The lease of the present quarters was renewed for three years. The death of Thas. D. Lovett was reported and a committee appointed to prepare suitable resolutions. The report of the Secy. and Treas. was accepted and ordered printed, together with a revised list of members. Officers for the ensuing year were elected as follows: Pres., Geo. W. Kittredge; Vice-President, W. B. Ruggles, Secy. and Treas., J. F. Wilson; Directors, A. O. Elzner, H. E. Warrington and Wm. C. Jewett. The retiring president, Mr. Chas. E. Lindsay, read a paper on the progress made in various branches of engineering during the past few years.

J. F. Wilson, Secy.

CONNECTICUT CIVIL ENGINEERS' AND SURVEYORS' ASSOCIATION.—The 14th annual meeting of this association was held in Hartford, Conn., Jan. 11. President R. A. Cairns, in his annual address, outlined the railway improvements of the year, describing a number of grade crossing removals. Mr. C. H. Bunce, City Surveyor, exhibited a map of Hartford illustrating the amount of work done on different streets recently. Mr. T. H. McKenzie, Supt. New Britain water-works, presented a paper describing the system in use in New Britain and the improvements under way. The following officers were elected for 1898: Pres., R. A. Cairns, Waterbury; Vice-Presidents, L. W. Burt and Edwin D. Graves, both of Hartford; Secy. and Treas., George K. Crandall, New London.

MONTANA SOCIETY OF ENGINEERS.—The annual meeting of this society was held at Butte, Mont., Jan. 6-8. A large part of the time was devoted to excursions to points of engineering interest. On the last day the address of the retiring President, Mr. Chas. W. Goodale, was read. This was a review of the engineering progress in the state during the past year, and included accounts of the Canyon Ferry dam, the dam on the Big Hole, the Anaconda and Butte water-works and the cyanide plant of the Montana Mining Co. Mr. T. M. Ripley read a paper on the Missouri River dam. Some discussion on this and the subject of good roads followed. The officers for the ensuing year will be: Pres., James M. Page, Twin Bridges; First Vice-President, M. S. Parker, Great Falls; Second Vice-President, Horace J. Smith, Helena; Secy., Albert S. Hovey, Helena; Treas. and Member of the Board of Mechanical Engineers, James S. Keerl, Helena.

IOWA ENGINEERING SOCIETY.—The program of the 10th annual meeting of this society, held in Cedar Rapids, Iowa, Jan. 19-20, includes the following papers: Wednesday.—"A Puzzling Problem," Seth Dean; "Street Grades," L. H. Stone; "Street Railways," B. Schreiner; "The County Surveyor as a Map Publisher," J. S. Pingrey; "Laying a Submerged Water Main," E. P. Boynton; "The Centerville Cemetery," Wm. Steyh; "Education as a Means," Prof. J. T. Beard; "Iowa Geology, from an Engineering View," Dr. S. Calvin. Thursday.—"Light and Lenses," Prof. W. H. Mahaffie; "Artesian Wells as a Source of Water Supply," Prof. W. H. Norton; "The Air Lift Pump of the Ft. Madison Water-Works," J. Ross Robertson; "The Water Supply of Des Moines," L. Higgins; "Interpretation of Sanitary Water Analysis," Prof. Floyd Davis; "Des Moines Paving Brick and Clays," E. P. Boynton; "Tests of Iowa Building Stones and Paving Brick," Prof. A. Marston; an address, Prof. A. V. Sims; exhibition of appliances, etc.; report of Committee on Legislation, B. Schreiner, Chn.; report of Committee on Practical Work, L. Higgins, Chn.; report of Committee on Professional Ethics and Compensation, C. R. Allen, Chn. Thursday evening the convention will be closed with a banquet.

THE CIVIL ENGINEERS' CLUB OF CLEVELAND.—At the meeting held on Jan. 11 Mr. W. H. Searles was elected Secretary and Mr. Joseph R. Oldham, Director, to fill the vacancies for the unexpired term. Resolutions of respect regarding the late Forrest A. Coburn were adopted. Mr. M. S. Greenough, M. Am. Soc. C. E., addressed the club on the subject of "Modern Gas Plants." He briefly reviewed the history of the gas manufacturing industry since its first inception, near the beginning of the present century, and illustrated some of its more important and recent developments. He described the works of the Cleveland Gas Light & Coke Co., of which he is President and General Manager. He described a modern regenerative retort. He also described and illustrated the purifying boxes which are at present employed. He described the modern gas holder and frame, the construction of which has become an important engineering problem. The lecturer also described a variety of labor-saving machines, such as apparatus for coal raising and charging, for coke handling and sorting, etc. He described the Coventry inclined retorts for the manufacture of gas by a continuous process which is aided by gravity. He also discussed the so-called water gas and described some works designed for its manufacture. In conclusion, he illustrated upon a map of the city the system of distribution employed, and described the means by which a nearly uniform pressure is maintained under the extremely varying rate of consumption during the hours of the day and night. W. H. Searles, Secy.

FRANKLIN INSTITUTE.—On the evening of Jan. 14 Mr. Edward P. North, Consulting Engineer to the Department of Public Works, New York city, read a paper entitled "Transportation and Wealth," in the course of which he explained the relation existing between cost of transportation and cost of finished article to the purchaser. Statistics were given to show the amount of freight carried. England's great growth since 1651 was attributed to the navigation act, which cheapened internal transportation. Comparing the costs of transportation in 1865, those in the United States were highest, while at present English rates are dearest and those of our country least.

Diagrams were exhibited showing the interdependence between increasing railway tonnage and low rates. Mr. North stated that English freight rates have remained practically constant since the adoption of free trade, 50 years ago. Diagrams and data were presented to show the decreasing commerce of the unimproved Suez Canal, and the Sault Ste. Marie Canal, in which the commerce has grown until it is double that of the former's.

He favored the improvement of waterways in general, and particularly the scheme for a ship canal from New York to Philadelphia. Speaking of the Lake Erie and Ohio River Canal, he regretted that the depth had been limited to 15 ft., since already many lake steamers draw 20 ft.; these larger sizes having shown themselves cheaper carriers. Speaking of the Nicaraguan Canal, he said, with sufficient sized channels and locks, the traffic passing through would equal fully 25,000,000 tons per annum, or an amount equal to that of both the Suez and Sault Ste. Marie canals.

RAILWAY SIGNALING CLUB.—The annual meeting was held in Chicago Jan. 11. At 2 p. m. a large party of the members and visitors left the Dearborn St. station on a special train provided by the courtesy of Mr. J. M. Warner, Superintendent of the Chicago & Western Indiana R. R., and proceeded to State Line to examine the new interlocking plant put in by the National Switch & Signal Co. for the extensive and complicated system of crossings and junctions at this place. The tower is of brick, and has a vertical locking frame for 224 levers, now fitted with 157 working levers. We shall describe this plant in another issue.

On returning from State Line the party was entertained at dinner at the Technical Club by the National Switch & Signal Co., represented by Mr. H. M. Sperry, and after dinner a trip, by special train, was made on the elevated loop to inspect the signal equipment of the line, and then out to the power house of the Metropolitan Elevated R. R. This trip was arranged by the courtesy of Mr. S. S. Neff, Superintendent of the loop, and Mr. W. E. Baker, Superintendent of the Metropolitan Elevated R. R.

The party then proceeded to the Great Northern Hotel, where the business meeting was held. A paper on "The Signal Engineer" was read by Mr. W. H. Elliott, Signal Engineer of the Chicago, Milwaukee & St. Paul R. R., but in view of the lateness of the hour, discussion was postponed.

The election of officers resulted as follows: Pres., Geo. D. Fowle (Pennsylvania R. R.); Vice-President, W. H. Elliott (C. M. & St. P. Ry.); Member of Executive Committee, H. M. Sperry (N. S. & S. Co.); Secy., Earl M. Sietz (C. & N. W. Ry.).

The next meeting will be held at Pittsburg, Pa., on March 8.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
Jan. 20.	Crossing and cobblestones,	Easton, Pa.	Jan. 13
Jan. 20.	Sewer, etc.,	Rochester, N. Y.	Jan. 13
Jan. 20.	Hospital building,	Buffalo, N. Y.	Jan. 13
Jan. 20.	Hospital cottages,	Central Islip (L.I.), N. Y.	Jan. 13
Jan. 20.	Highway bridges (2),	Omaha, Neb.	Jan. 6
Jan. 20.	Building plans,	Faribault, Minn.	Dec. 30
Jan. 20.	Crib and breakwater,	Agate Bay, Minn.	Dec. 30
	Advertised, Eng. News, Dec. 30 to Jan. 13.		
Jan. 20.	Electric light plant,	Los Angeles, Cal.	Jan. 6
Jan. 20.	State highway (5,400 ft.),	Swampscott, Mass.	Jan. 20
Jan. 20.	Bridge superstructure,	Tilsonburg, Ont.	Jan. 20
Jan. 20.	Removing garbage,	New Haven, Conn.	Jan. 20
Jan. 21.	Heating,	Portage la Prairie, Man.	Jan. 13
Jan. 21.	School building, etc.,	Chicago, Ill.	Jan. 13
Jan. 22.	Garbage disposal plant,	Youngstown, O.	Dec. 23
	Advertised, Eng. News, Dec. 23 to Jan. 13.		
Jan. 22.	Filling, grading, etc.,	Santa Cruz, Cal.	Jan. 20
Jan. 22.	Gravel roads,	Mount Vernon, O.	Jan. 20
Jan. 22.	Valves, etc.,	St. Louis, Mo.	Jan. 20
Jan. 24.	Street bonds,	Norwood, O.	Jan. 20
Jan. 24.	Garbage disposal bonds,	Youngstown, O.	Jan. 20
Jan. 24.	Grading, draining, etc.,	Boston, Mass.	Jan. 6
Jan. 24.	Brick sewers,	Toledo, O.	Jan. 13
Jan. 25.	Doorway,	St. Louis, Mo.	Jan. 13
Jan. 25.	County bridge,	Livingston, Mont.	Jan. 6
Jan. 25.	Sewerage system,	Coimbra, Portugal	Dec. 30
Jan. 25.	Iron stairs, etc.,	Omaha, Neb.	Dec. 30
Jan. 25.	School buildings,	Charlottestown, P. E. I.	Dec. 30
Jan. 25.	Wooden bridge,	Crookston, Minn.	Jan. 20
Jan. 25.	Water refunding bonds,	Pittsburg, Pa.	Jan. 20
Jan. 26.	Greenhouses (2),	Indianapolis, Ind.	Jan. 20
Jan. 26.	Water tank trestle,	Ft. Assiniboine, Mont.	Jan. 6
Jan. 26.	Water-works,	Monroeville, O.	Jan. 6
	Advertised, Engineering News, Jan. 6.		
Jan. 26.	Mortar battery,	Seattle, Wash.	Dec. 30
	Advertised, Eng. News, Dec. 30 to Jan. 20.		
Jan. 26.	Court house,	Decatur, Ga.	Dec. 9
Jan. 26.	Removing ashes,	Camden, N. J.	Jan. 13
Jan. 26.	Repairing streets, (5 years),	Cincinnati, O.	Jan. 13
Jan. 27.	Heating and ventilating,	Little Rock, Ark.	Jan. 13
Jan. 27.	Artesian well,	Fort Washington, Md.	Dec. 30
	Advertised, Eng. News, Dec. 30 to Jan. 20.		
Jan. 28.	Collecting garbage, etc.,	Minneapolis, Minn.	Dec. 30
Jan. 28.	Water bonds ($21,000),	Franklin, Ky.	Jan. 13
Jan. 28.	Buildings,	Denver, Colo.	Jan. 13
Jan. 28.	Castings, hydrants, etc.,	St. Louis, Mo.	Jan. 20
Jan. 28.	Lift bridges (2),	Utica, N. Y.	Jan. 20
Jan. 28.	Lift bridge,	Syracuse, N. Y.	Jan. 20
Jan. 29.	Armor plant,	Washington, D. C.	Dec. 16
Jan. 31.	Grading,	Toledo, O.	Dec. 30
Jan. 31.	Steel tow boat,	New Orleans, La.	Dec. 30
	Advertised, Eng. News, Dec. 30 to Jan. 20.		
Jan. 31.	Brick sewers,	Toledo, O.	Jan. 6
Jan. 31.	Paving, curbing, etc.,	Columbus, Ind.	Jan. 6
	Advertised, Engineering News, Jan. 6.		
Jan. 31.	Railway,	Cape of Good Hope, Africa	Jan. 6
Jan. 31.	Sidewalk bonds,	College Hill, O.	Jan. 13
Jan. 31.	Paving Buffalo St.,	Houston, Tex.	Jan. 20
Jan. 31.	Port,	Buenos Ayres, Argentine	Jan. 20
Feb. 1.	County bridges (3),	Laramie, Wyo.	Jan. 20
Feb. 1.	Water-works,	Summit, Miss.	Jan. 20
Feb. 1.	Dam (1,350 ft.),	Swansea, England	Jan. 20
Feb. 1.	Water tunnel (14,310 ft.),	Swansea, Eng.	Jan. 20
Feb. 1.	Hospital building,	Allentown, Pa.	Jan. 20
Feb. 1.	Auditorium building,	Lawrence, Kan.	Jan. 13
Feb. 1.	Macadamizing,	Passaic, N. J.	Dec. 30
Feb. 1.	Power plant,	Seattle, Wash.	Dec. 30
Feb. 1.	Court house,	Indianola, Miss.	Dec. 23
Feb. 1.	Electric light plant,	Spring Green, Wis.	Jan. 6
Feb. 1.	Church building,	Clinton, Mass.	Jan. 6
Feb. 1.	Steel ferry steamers (2),	Birkenhead, Eng.	Jan. 6
Feb. 2.	Water pipe (10,000 tons),	Cleveland, O.	Jan. 13
Feb. 2.	Sewers,	Indianapolis, Ind.	Jan. 20
Feb. 2.	Iron bridge,	Mankato, Minn.	Jan. 20
Feb. 2.	Water pipe, etc.,	Elmwood Place, O.	Jan. 20
Feb. 2.	Street sweeping machines (8),	Omaha, Neb.	Jan. 20
Feb. 3.	Widening bridge,	Washington, D. C.	Jan. 6
	Advertised, Engineering News, Jan. 6.		
Feb. 5.	Steel bridge,	Cincinnati, O.	Jan. 13
Feb. 5.	Water-works, etc.,	Rapid City, S. Dak.	Jan. 13
Feb. 5.	Sewerage system, etc.,	Rapid City, S. Dak.	Jan. 13
Feb. 5.	Water-works,	Elkpoint, S. Dak.	Jan. 6
Feb. 7.	Cement sidewalks,	Muncie, Ind.	Jan. 13
Feb. 7.	Grading, etc.,	North Stonington, R. I.	Jan. 13
Feb. 7.	Motor vans (garbage),	Wolverhampton, Eng.	Jan. 13
Feb. 8.	Navy yard supplies,	Mare Island, Cal.	Jan. 20
Feb. 8.	Hospital building,	Willows, Cal.	Jan. 20
Feb. 8.	Capitol building,	Helena, Mont.	Jan. 20
Feb. 8.	Heating,	Stockton, Cal.	Jan. 20
Feb. 9.	Macadamizing (5,320 ft.),	Burlington, Vt.	Jan. 20
Feb. 10.	Electric light plant,	Gallatin, Mo.	Jan. 20
	Advertised, Engineering News, Jan. 20.		
Feb. 10.	Water-works,	Gallatin, Mo.	Jan. 20
	Advertised, Engineering News, Jan. 20.		
Feb. 10.	Tower,	Savannah, Ga.	Jan. 20
Feb. 10.	Lock, dam, etc.,	Yamhill River, Ore.	Jan. 6
	Advertised, Eng. News, Jan. 6 to 27.		
Feb. 10.	Library,	Pt. Elizabeth, Cape Good Hope.	Nov. 25
Feb. 11.	College buildings,	Missoula, Mont.	Jan. 20
Feb. 14.	Garbage disposal plant,	La Fayette, Ind.	Jan. 20
	Advertised, Eng. News, Jan. 20 and 27.		
Feb. 15.	Hire of dredging plant,	Mobile, Ala.	Jan. 20
	Advertised, Eng. News, Jan. 20 to Feb. 10.		
Feb. 15.	Shore protection, etc.,	Ft. Morgan, Ala.	Jan. 20
	Advertised, Eng. News, Jan. 20 to Feb. 10.		
Feb. 15.	Trunk sewer,	Jersey City, N. J.	Dec. 23
Feb. 15.	Filtration plant,	Albany, N. Y.	Jan. 6
	Advertised, Eng. News, Jan. 6 to 27.		
Feb. 16.	County bridges,	York, Neb.	Jan. 20
Feb. 21.	Vault, etc.,	Halletsville, Tex.	Dec. 23
Feb. 21.	Extending pier,	Margaree, N. S.	Jan. 13
Feb. 23.	Water supply,	Jersey City, N. J.	Jan. 13
Feb. 28.	Harbor work,	Pernambuco, Brazil.	Jan. 13
Feb. 28.	Purchase light & water plant,	Brunswick, Ga.	Jan. 20
Mar. 1.	Railway,	Henrietta, Tex.	Jan. 13
Mar. 7.	School bonds ($90,000),	Toledo, O.	Jan. 20
Mar. 7.	Refitting vault,	Waukegan, Ill.	Jan. 20
Mar. 8.	Jail building,	Madera, Cal.	Jan. 20
Apr. 30.	Town hall,	Singapore, S. S.	Jan. 13
May 1.	Plans for sewage disposal,	Belper, Eng.	Dec. 16
July 1.	Water power,	Madras, India	Oct. 28

RAILWAYS.

BLACK DIAMOND.—It is announced that at an election held at Anderson, S. C., held Jan. 6, it was voted to issue $50,000 in bonds as a subsidy to aid the construction of this projected railway system to Anderson. Pres., Col. Albert E. Boone, Zanesville, O.

BOSTON & MAINE.—Reports state that T. H. Phair, of Presque Isle, Me., has been awarded the contract to furnish 300,000 railroad ties for the Boston & Maine R. R., involving an expenditure of about $70,000. H. Bissell, Ch. Engr.; J. A. Farrington, Purchasing Agt., both of Boston, Mass.

BRAINERD & NORTHERN MINNESOTA.—A. Guthrie & Co., St. Paul, Minn., are said to have been awarded the contract for constructing the proposed extension of the line from Walker, Minn., to a point about 30 miles north. E. H. Hoar, Gen. Mgr., Brainerd, Minn.

BULGARIA.—Theodore M. Stephan, U. S. Consul, Annaburg, Bulgaria, reports the construction of the following railway lines is projected: (1) From Slivno across the Balkan Mountains; (2) from Sistova, on the Danube, connecting with the main line; (3) a line diverging from the Varna-Roustshouk Railway, running to Silistria; (4) a line diverging from the same railway to Drobics; (5) a branch diverging from the Mezdra-Lom line to Berkovicza; (6) a branch connecting Lomakov with the main line; (7) a line establishing direct connection from Nikopolt to the main line, Belgrade-Nisch-Sofia-Adrianopie-Constantinople; (8) a line connecting Drakova with the central line. Besides these lines, the construction of which has, according to the Handels-Museum, already been decided upon, the construction of the following lines is contemplated: (1) Widdin to be connected with the Mezdra-Lom line; (2) between Sistova and Gradiste; (3) between Silvno and Kavakli; (4) from Rodomir to the Turkish boundary.

CHESTER & LENOUR.—J. A. Martin, Secy., Hickory, N. C., informs us that J. R. Irvin & Co., of Morgantown, N. C., were awarded the contract, Jan. 15, for grading 10 miles of the proposed extension of this road from Hickory.

COLUMBUS, FULTON & NORTHERN.—Reports state that surveys are now being made for this proposed line from Columbus, Miss., to Lexington, Tenn., and that work is expected to commence in a few months. Pres., Newman Cayce; Secy., J. T. Senter, Columbus, Miss.

HONDURAS.—Geo. H. Thomson, 51 East 44th St., New York, N. Y., has been appointed consulting engineer to the Honduras R. R. syndicate. The road at present consists of about 60 miles of narrow gage track, extending from Puerto Cortes to La Pimienta. It is intended to change the line soon to standard gage and probably to extend it to Gulf Fonseca. A. R. T. Lackie, Ch. Engr.

HUTCHINSON & SOUTHERN.—H. L. Jackson, Ch. Engr., Wichita, Kan., informs us that the contract for grading has been let on the proposed extension of this road from Medford to Blackwell, Okla., a distance of 25 miles, to John Alexander, and for constructing the bridges to Charles Sawyer, both of Wichita. The grading is about completed and all the material has been purchased to construct the line into Blackwell. Trains will be running into Blackwell about Feb. 25. Pres., W. A. Bradford, Jr., Hutchinson, Kan.; Vice-Pres. and Gen. Mgr., E. E. Walker, Hutchinson.

LAKE SHORE & MICHIGAN SOUTHERN.—By an agreement filed with Mayor Harrison, of Chicago, Ill., Jan. 7, this company promises to raise its tracks at 63d and State Sts., four and one-half feet higher than it was required to do by the original track elevation ordinance of 1894. E. A. Handy, Ch. Engr., Cleveland, O.

MEXICAN NORTHERN.—Press reports state that this road, which is owned by a company of Kansas City capitalists, headed by H. S. Towne, will be extended at once to Marathon, Tex., from Sierra Mojado, Mexico, connecting with the Southern Pacific Ry. at Marathon. The new line will pass through the Boquillas mining camp, where the owners of the road have rich mines. The Mexican Northern now runs from Escalon, on the Mexican Central, to Sierra Mojado. Surveys for the proposed extension were made several months ago.

MEXICAN SOUTHEASTERN.—It is reported that the Mexican government has cancelled the concession given to this company for the building of a railway from San Geronimo, on the National Tehuantepec Ry., to the Guatamalan border, where it would connect with a line now being built from Guatamala City. Surveys are completed, and about 30 miles graded and ready for tracklaying.

MISSOURI, OKLAHOMA & TEXAS.—This company has been incorporated in Oklahoma, with a capital stock of $800,000. It is proposed to build a railway from Henrietta, Tex., in a northerly and easterly direction through the Indian and Oklahoma territories to a point on the north boundary line of Indian territory, to be selected by the company, between the town of Chetopa and the point where the Arkansas River is crossed by the north boundary line; with a branch to be constructed from a point on the main line between the point of crossing of the North Fork of the Canadian River and a point due west of the town of Wagoner in the Creek nation, and to run thence to Wagoner over the most practicable and feasible route. The estimated length of the main line of the proposed road is 289 miles, and of the branch to Wagoner 90 miles, making a total of 388 miles. The incorporators are: S. Clay, A. T. Foster, E. B. Mundy, D. T. McDonough and W. Christian, all of Tecumseh, Okla.

NORTHERN MINNESOTA & WISCONSIN.—This company was incorporated in Minnesota, Jan. 9, with a capital stock of $10,000, to construct a line of railway from Nickerson, Minn. Among the incorporators are Henry R. Brooks, Anson S. Brooks and Phillip R. Brooks, of Minneapolis, Minn.; and Dwight F. Brooks, of St. Paul, Minn.

ORANGE, CALL & PINE BELT.—D. Call, Pres. and Treas., Orange, Tex., informs us that 14 miles of this line from Salem to Call have been built and are now in operation, using 3 locomotives, 56 cars and 2 coaches. For the present the road will not be extended, but a further extension from Call to Jasper, via Orange, a distance of 61 miles, is contemplated.

PINE BLUFF & ARKANSAS RIVER.—This company was organized at Pine Bluff, Ark., Jan. 6, with a capital stock of $200,000. It is proposed to complete and operate the railway system projected by the old Pine Bluff & Eastern Ry., to run between Pine Bluff and Gillett. It will only be necessary to construct new track between English and Gillett, a distance of about 17 miles, as the road was already in operation between Robroy and English, and made a connection with Pine Bluff over the St. Louis Southwestern Ry. The following officers were elected: Pres., John M. Gracie; Vice-Pres., J. M. Taylor; Secy., W. H. Langford; Directors, John M. Gracie, W. H. Langford, S. W. Fordyce, S. M. Taylor and H. E. Martin.

PUEBLO & SOUTHWESTERN.—This company has been granted a charter in Colorado, to construct a railway from Bessemer Junction to Beulah, Colo., a distance of about 30 miles. The incorporators are: D. J. Kelly and Bernard A. Jaeger, of Denver, Colo.; J. E. Rizer, Pueblo, Colo.

RICHMOND, PETERSBURG & CAROLINA.—Reports state that most of the grading on this proposed railway between Petersburg, W. Va., and Ridgeway, N. C., a distance of 38 miles, has been completed. It is also said that contracts will soon be let for the heavier part of the work. Pres., Gen. Jas. S. Negley, 136 Liberty St., New York.

RUSSIA.—Consular reports state the Russian Minister of Communication intends to make all main lines of the Russian railway system double-track lines, and that work will begin at once and be pushed till completed. Also that it is projected to build a direct line between Kalisch, on the German border, and Warsaw; and a line 672 miles long, connecting Moscow directly with the port of Windam, on the Baltic Sea. The concession for the latter has been granted to the Rybinsk Ry. Co.

SALT LAKE & LOS ANGELES.—H. M. McCartney, Ch. Engr., Salt Lake City, Utah, informs us that the option held by this company for the purchase of the Utah & Nevada Ry., which expired Jan. 1, has been renewed, and that it is not probable that any decision in the matter will be reached before March 1. Pres., Geo. Q. Cannon, Salt Lake City.

SAN FRANCISCO & SAN JOAQUIN VALLEY.—Press reports state that contracts will be let by this company in the first week in February for the construction of a tunnel 5,700 ft. long, near Rodeo, estimated to cost about $450,000. W. B. Storey, Ch. Engr. and Act. Gen. Supt., 321 Market St., San Francisco, Cal.

TALLAHASSEE & SOUTHEASTERN.—Track laying will commence on this road in February, according to reports, and it is expected to construct about 100 miles during 1898. R. L. Bennett, Vice-Pres. Florida Construction Co., Tallahassee, Fla., is interested.

TRANSVAAL.—Reports state that the Transvaal government has appropriated about $14,600 for preliminary work upon projected line of railway from Petoria to Rustenburg. It is also proposed to build a branch from the Pietersburg line, near Daspoort, thence to run along the Mogatiesberg range to the capital.

TUSCARORA VALLEY.—D. C. Morehead, Port Royal, Pa., is stated as saying that this narrow gage road will most likely be extended in the spring from Blair's Mills, the present southern terminus, to McConnellsburg, Pa., a distance of 31 miles, with ultimate extensions to Hancock or Cherry Run, Md. J. W. Woolfolk, Gen. Mgr., 15 Wall St., New York.

TUSCARORA.—The Tuscarora R. R. Co. was incorporated in Pennsylvania, Jan. 18, with a capital stock of $310,000, with $31,000 paid in. It is proposed to construct a steam railway from Fell township, at or near Blair's Mills, to McConnellsburg, Pa., and it will apparently be used as an extension of the Tuscarora Valley R. R. Pres., T. S. Moorhead, East Waterford, Pa.; directors: Carl P. Espenshade, of Mifflintown, Pa., and J. C. Moorhead, Port Royal, Pa.

WEST VIRGINIA SOUTHERN.—This company has been incorporated, with a capital stock of $50,000, by Joseph Renshaw, J. H. Renshaw, R. T. Herndon, C. C. Herndon and Russell Quarrier. It is proposed to construct a steam railway from Brownstown to Tazewell, Va., a distance of about 70 miles.

STREET AND ELECTRIC RAILWAYS.

GREAT BARRINGTON, MASS.—H. F. Keith, of Mount Washington, Mass., is said to be interested in the proposed electric railway to be built from Monterey through this town, the total length of which will be about 21 miles.

MIDDLETOWN, R. I.—Albert L. Chase, Town Clk., informs us that work has started on the building of the Middleton & Portsmouth St. Ry., at Portsmouth, R. I. The power house has been located and material for its erection is being forwarded. Tucker, Anthony & Co., of Boston, Mass., are among the chief promoters. Pres., Melville Bull, Newport, R. I.

WATERBURY, CONN.—A. Heaton Robertson, owner of the Meriden, Waterbury & Connecticut River R. R., informs us that nothing definite has been decided upon with regard to the equipment of his road with the third rail electric system. Current reports were without foundation in fact, at present.

DELHI, N. Y.—The Delaware Valley R. R. Co. was incorporated at Albany, Jan. 14, with a capital stock of $150,000, to construct and operate an electric line from Delhi to Bovina Centre and Andes. The directors are: Pres., Henry Davie, J. R. Honewell, S. P. Wilbur, and George W. Youmans, of Delhi; James F. Scott and W. C. Oliver, of Andes; Herbert F. Sewell, of Dalton; Alexander Wilson and T. E. Hastings, of Bovinia.

NEW ROCHELLE, N. Y.—The Huguenot Electric Ry. Co. has been incorporated, according to reports, with a capital stock of $100,000. It is proposed to build an electric line in this village, and for that purpose a franchise has been requested of the council. The Directors are: L. K. Fries, J. M. Schuyler, James A. Burchell and N. J. Burchell, of New Rochelle; G. G. Duy, of New York; A. B. Linderman, J. A. Cass and M. B. Faulkner, of Philadelphia, Pa.

SOUTH SCHENECTADY, N. Y.—The Schenectady Ry. Co. has promised to extend its line to this place before Oct. 1, provided that the right of way be granted free, and that ten $1,000 bonds of the company be disposed of. A committee composed of Henry Springstead, of Bellevue; Alanson Robinson and Van D. Sager, of South Schenectady, has been appointed to push matters.

BRIDGETON, N. J.—F. L. Hewitt informs us that most of the right of way has been obtained for the proposed extension of the Bridgeton & Millville Traction Co.'s line to Fairton, a distance of 4 miles. Secy., Walter H. Bacon, Bridgeton.

FANWOOD, N. J.—The Elizabeth & Westfield Electric St. Ry. Co. has applied for a franchise to lay tracks through this township. T. J. Nichol, Chn. Township Com.

JERSEY CITY, N. J.—The National Docks Ry. Co., the New Jersey Junction Connecting Ry. Co., the Kill Von Kull Ry. Co. and the Bay Creek Ry. Co. were consolidated, Jan. 13, under the name of the National Docks Ry. Co. They were all parts of one line, running from the West Shore Station, at Weehawken, to Bergen Point, and connecting with all the railways with terminals on the New Jersey side of the Hudson River in Hudson County.

MONTCLAIR, N. J.—The town council and the North Jersey St. Ry. Co., it is understood, have at last come to an agreement which will allow the company to finish the link on Bloomfield Ave. needed to complete the line from Newark through Bloomfield, Glen Ridge, Montclair and Varona to Caldwell. The road has been built to the Montclair line on each side of the town, and the company has been trying for some two or three years to get through Montclair. The proposed franchise will be perpetual for Bloomfield Ave. and limited to 40 years for branches ex-

tending to the north and south ends of the town. The company is supposed to be an adjunct of the Consolidated Traction Co. of Newark and Jersey City. E. W. Sanford, Chn. Franchise Com.; Jas. K. Corbiere, Pres. North Jersey St. Ry. Co., 28 Nassau St., New York, N. Y.

NEWARK, N. J.—Press reports state that the Newark & South Orange R. R. Co. and the North Jersey Traction Co. have consolidated, each company having a capital stock of $250,000. The new management, it is said, will extend its system into other counties and make connection in all directions, and compete for local passenger traffic with the Delaware, Lackawanna & Western R. R. and the Central R. R. of New Jersey, and soon establish connections with the trolley systems in Northeastern Pennsylvania.

WEST ORANGE, N. J.—Frank Brewer, Pres. West Orange Electric Light & Power Co., informs us that this company has bought the Orange Mountain Cable R. R. and will put it in operation at once, making direct connection with the South Orange & Maplewood Traction Co.'s line, thus being able to carry passengers to the Essex county parks on the top of the mountain.

COLLINGSWOOD, N. J.—The Camden & Suburban Ry. Co. was granted a franchise by the borough council, Jan. 11, for an extension on Lees ave. Mayor Tatem may be addressed.

ELLWOOD CITY, PA.—J. W. Humphrey informs us that the surveys have been made and much of the right of way been obtained for the proposed line of the Park Gate & Ellwood St. Ry. Co. from Park Gate through Ellwood City, Hazel Dell and Dock Point Park, a distance of 3 miles. Capital has been secured, but no contracts have yet been awarded. Pres., Thomas Dugan, Ellwood City; Ch. Engr., J. S. Hays, New Castle, Pa.

GREENSBURG, PA.—A meeting of the stockholders of the Greensburg, Jeannette & Pittsburg Electric Ry. Co. was held, Jan. 10, at which it was decided to extend the road to Irwin in the early spring. No action was taken in the matter of building the road from here to Mount Pleasant. That will not occur, it is thought now, for a year or more; the franchise holds good for two years. The following officers were elected: Pres., W. F. Sadler, Carlisle, Pa.; Secy., M. F. Thompson, Carlisle, Pa.; directors, W. A. Coffee, H. G. Beetem, Edward Bailey, W. J. Sniveley, P. Russ and J. B. Kauffman.

MYERSVILLE, MD.—The Myersville & Catoctin Electric Ry. Co. has been organized in Middletown and the following officers have been elected: Pres., Cyrus F. Flook; Secy., George D. Thoms; Treas., John P. Hildebrand. The company proposes to build an electric line from Middletown to Myersville, a distance of five miles, the route of which has already been surveyed, and the cost estimated at $36,000. The road will connect with the Frederick & Middletown Electric Ry. at Middletown and be a feeder to that line.

HAMPTON, VA.—The town council, Jan. 6 granted permission to the Newport News, Hampton & Old Point Electric Ry. Co. to lay tracks and run its cars from the Old Dominion wharf up King St., as far as the corporation limits. The new line is to be completed by June 1.

CLEARWATER, FLA.—J. W. Drew, Mayor, informs us that the voters rejected the proposition granting to H. B. Plant, of New York, a perpetual franchise to construct and operate an electric line in this city, but that the subject may soon be reconsidered.

BOND HILL, O.—The citizens of this place and Carthage are said to be considering the building of an electric railway between these places over the Paddock Road.

AKRON, O.—Press reports state that George W. Crouse, of Akron, and A. O. Bebee, of New York, were appointed, Jan. 13, receivers of the Akron St. Ry. & Illuminating Co.

LINWOOD, O.—Reports state that the Linwood, Mount Washington & Bethel Ry. Co. has been organized to construct an electric line between Linwood and Bethel, a distance of 23 miles. John B. Martin may be addressed.

MONROE, MICH.—Holt, Schober & Co., of Philadelphia, Pa., are said to have been awarded the contract for building the Jacobson & Johnson Electric Ry. from Toledo to Monroe and from Monroe to the lake. Work is to begin at once.

CHICAGO, ILL.—The Northwestern Elevated Ry. is to be completed this year, but it is proposed to have this done by the railway company instead of through the Columbian Construction Co., which built the part now standing. In a statement issued by C. T. Yerkes, Pres., it is shown that the only construction work done during 1897 was the erection of the ironwork already delivered. This included 4,400 ft. of four-track structure from Dayton St. to Fullerton Ave., and 2,400 ft. from Grace St. to a point north of Buena Park station, making a total distance of 1.3 miles during 1897, and up to date 3.2 miles of four-track structure. The length of the line will be .092 miles of double-track from Institute Place to Lake St., and 5.52 miles of four-track structure from Institute Place to Wilson Ave.; total, 6.44 miles. In addition to main line there will be 0.31 miles of single track and 0.21 miles of double track incline for storing and handling rolling stock at terminal yard. Total mileage of single track, including main line and terminals, will be 25.45. The metal work for five miles of the line has been manufactured, leaving 1.44 miles to be manufactured for the line south of Dayton St. to a connection with the loop. The manufactured metal will cover 80% of the entire length of the road. About 51% of the entire length of the structure has been erected, and 10% of the manufactured metal which has not been erected is now distributed along the right of way between Belden and Fullerton Aves., the erection of which was prevented by the strike, May, 1897. All the foundations have been completed with the exception of 5,320 ft. between Chicago Ave. and North Ave., or about 16% of the total line. The Wells St. bridge has been reconstructed and is ready for the tracks. In addition to the construction work above referred to there is 3,600,000 ft. B. M. yellow pine timber stored on the right of way for track work, and in the warehouse is all the track material. None of the metal work required for stations has been manufactured.

NEENAH, WIS.—It is reported that the Fox River Valley Inter-Urban Ry. officials are negotiating for the purchase of Doty Island, north of the dam on the River and that they will build a large power house.

FORT SCOTT, KAN.—Reports state that the Citizens' Ry. Co., with a capital stock of $60,000, will build and operate a street railway at this place. The directors are: D. P. Thomas, C. P. McDonald, W. H. Frost and others.

DENVER, COL.—Press reports state that the Golden Circle Ry. Co. is preparing to extend its line to Denver, and that Syl T. Smith, Pres. of the Florence & Cripple Creek, is now in New York making arrangements for the project and negotiating for the necessary capital. Starting from Cripple Creek, the road will be laid to a point between Florissant and Lake George, avoiding the Midland Terminal. Thence the road will go directly down the canon of the south fork of the South Platte on the old grade as laid out some 12 years ago by the Rio Grande as a short cut to Leadville. At the station of South Platte, or Symes, the proposed line will join the Denver, Leadville & Gunnison, but will be built on the opposite side of the canon for a distance of nine miles to its mouth. The cost of the road will be about $1,500,000. A large electric plant has been started at Goldfield and although coal is now used, the power will soon be furnished by water. The proposed line will be about 120 miles in length. It is probable work will begin next summer if the negotiations are successful.

PASADENA, CAL.—The electric railway company of this place is said to be preparing to spend about $38,000 for new machinery. This will include a new 500-HP. engine and generator. Pres., C. W. Smith.

OGDEN, UTAH.—The "Electrical Trade Journal" of Chicago states that an electric road, 82 miles in length, is to be built between Ogden, Salt Lake City and Provo, Utah. The distance from Ogden to Salt Lake City is 37 miles, and from there to Provo, 45 miles. The road is to be built by the Utah American & Foreign Development Company, of London, which company has undertaken the development of a large section of the country tributary to the proposed road. The grades of the road do not exceed at any point 50 feet to the mile, and there is no occasion for sharp curves. The road will be laid down double-track, with 90-lb. steel rails, and an overhead conducting system. The power house will be located between Salt Lake City and Provo, and three miles from the former, the maximum distance between the power plant and either end of the line being 42 miles. The plant is designed for 20,000-HP., and eight cross-compound engines of 1,500-HP. each are to be installed at the start. The engines will be built by Robert Wetherill & Co., Chester, Pa. Directly coupled to the engines will be Stanley alternating dynamos of 750-K-W. capacity, the currents from which will be stepped up in stationary transformers to the line voltage. The company has also a plan for the utilization of Shoshone Falls, Idaho. There is available at these falls on the Snake River some 50,000 kilowatts of power continuously.

ELECTRIC LIGHT AND POWER.

AUGUSTA, ME.—The Augusta Heat & Power Co., it is reported, will construct a new $50,000 power house in the spring.

BETHEL, ME.—Herrick & Park are reported as interested in a proposed light and power plant for this place.

GORHAM, ME.—It is reported that Jesse Peterson, Lockport, N. Y.; W. F. Fowler, Boston Mass.; ex-Gov. P. C. Chenery, of New Hampshire, and F. W. Hodgdon, Engr. Massachusetts Harbor Bd., Boston, are interested in a proposed plant at Great Falls for power and light purposes.

FOXBORO, MASS.—E. P. Carpenter, Virgil S. Pond and C. L. Bixley have applied to the legislature for permission to erect an electric light and power plant.

HOLYOKE, MASS.—Mayor Connors will soon engage an expert to make a valuation of the plant of the Holyoke Water Power Co., with a view to the city's purchasing it. Is is said that the company asks about $1,000,000 for its plant. The people voted last month to have a municipal plant.

GLOUCESTER, MASS.—F. E. Davis, Mayor, writes us that nothing has been done in regard to the proposed plant except to refer the subject to the council committee.

SOMERVILLE MASS.—Albion A. Pearry, Mayor, writes us that no steps have yet been taken in regard to a municipal plant, as noted in our issue of last week.

BRENTWOOD (L. I.), N. Y.—A town meeting will be held Jan. 21 to consider the question of a new lighting district.

CLINTON, N. Y.—F. G. Brown, Elec. Engr., Rochester, and representing the Fort Wayne Electric Corporation, and Wm. L. Earl, Tully, N. Y., have submitted a proposition to light this place with arc and incandescent lights.

HUDSON, N. Y.—The Hudson Light & Power Co. is said to have been awarded the contract for lighting this place for a term of five years.

NEW ROCHELLE, N. Y.—A meeting of the village trustees has been called for Jan. 22, and it is stated that President Clark will veto the recent resolution giving to the Larchmont Electric Co. the contract for lighting the village for five years. This contract represents an expenditure of nearly $50,000, and it was bid for by both the Larchmont Electric Co. and the East Chester Electric Co., which is furnishing the present supply. The bid of the East Chester company was the lower, and it is now threatening an action to set aside the contract, on the ground that the village charter does not permit contracts of such magnitude for more than one year.

SENECA FALLS, N. Y.—Wm. Greenough, of Waterloo, N. Y.; H. Chamberlain, of Seneca Falls, and others are considering the question of securing legislation favorable to building a dam across the Seneca Lake outlet for increasing the water power along the river for manufacturing purposes.

UTICA, N. Y.—C. A. Nott & Co., proprietors of the Butterfield, are about to close contracts for the engines, boilers, dynamo, etc., necessary to the establishment of an electric light plant at their hotel. The engine and dynamo will be capable of generating 500 lights of 16 c. p. each.

WEST ORANGE, N. J.—Frank Brewer, Pres. West Orange Electric Light & Power Co., writes us that the company has been organized to furnish power and light in the township. Capital stock, $100,000.

EGG HARBOR CITY, N. J.—The council is reported to have granted a franchise for electric lighting. A plant will be built at once.

BLOOMFIELD, PA.—The "Democrat" is urging the council to construct a plant.

NEWPORT, PA.—Joshua S Leiby and others have been granted a franchise for lighting this place, according to reports.

SAYRE, PA.—The council has been petitioned to call an election to vote on the question of building a plant to cost about $20,000.

SPRINGTOWN, PA.—The citizens are considering the question of building a plant.

CHESTERTOWN, MD.—M. A. Toulson writes us that parties were recently granted a franchise to light the town. They have advertised for poles, etc. The plant will be completed by spring. Capital stock, $15,000. W. J. Hoffman and J. K. Wright are interested.

KINGWOOD, W. VA.—It is stated that this place will issue $10,000 in bonds for a plant.

ATLANTA, GA.—Press reports state that a development of water power for electrical transmission in this state is contemplated by a company of New York and Pennsylvania capitalists, who have acquired control of the Chattahoochee River for 16 miles. The purpose is to build three plants and a stone dam at each of the places. The fall from Jones Shoal to Bull Sluice, a distance of 13 miles, is from 75 to 80 ft. This part of the river will be a continuous lake, broken only by one dam. It will vary in width from 500 ft. to one mile. The three dams will furnish 11,000 HP. The purpose is to furnish electrical power for machinery placed upon the Southern Railway from Atlanta to Norcross for manufacturing purposes. The incorporators of the company are Henry H. Wilson and Emerson McMillan, 32 Wall St., New York; E. Emerson Smith, York, Pa., a member of a firm manufacturing electric machinery, and R. H. Smith, Gainesville, Ga. It is stated that about $1,000,000 will be invested in the enterprise.

BRUNSWICK, GA.—Bids are asked until Feb. 28 for the purchase of the plant of the Brunswick Light & Water Co. Alex. Proudfit and W. E. Burbage, Comrs.

SANDERSVILLE, GA.—It is reported that the people are considering the subject of building a plant and waterworks. Population, 2,000.

CULLMAN, ALA.—J. H. Karter writes us that J. E. Clark, Cullman, and Chas. Temple, Grand Rapids, Mich., have been granted a 15-year franchise for a plant and water-works. They must accept within ten days from Jan. 14. Each additional light over 14 are lights, $50 a year.

HAWKINSVILLE, ALA.—The construction of a plant and water-works is under consideration, according to reports. L. C. Ryan may be addressed.

CANTON, MISS.—Plans have been prepared for enlarging the plant, purchasing a 200 HP. Corliss engine and a water tube boiler. Engr., W. G. Kirkpatrick, Jackson, Miss.; Supt., E. A. Stinson.

WEST POINT, MISS.—Plans have been prepared for a plant to be operated in connection with the water-works, built last year. Mayor, C. L. Jordan; Engr., Walter G. Kirkpatrick, Jackson, Miss.

LA GRANGE, KY.—No contracts for constructing the proposed light and ice plant to be erected here will be let before Feb. 1. F. W. McIlvaine, Pres., writes us that the company has a 15-year franchise and that the plant will be in operation by May 1. Correspondence is solicted.

ALBANY, IND.—The committee is reported as making arrangements to begin the construction of a plant to cost $20,000.

ALEXANDER, IND.—The question of a municipal plant is being considered, according to reports.

VEEDERSBURG, IND.—The council is said to have awarded a contract for building a plant and water-works at $25,000. The improvements are to be completed by July 1.

DETROIT, MICH.—The Detroit Electric Light & Power Co. has been notified by Corporation Counsel Flowers to at once place its wires underground, as required by its franchise.

DURAND, MICH.—This place recently voted to extend the plant at a cost of $1,500, according to reports.

SCHOOLCRAFT, MICH.—An election will be held Jan. 25 to vote on the question of issuing $16,000 in bonds for a plant and water-works. J. W. Budron, Village Clk.

CHICAGO, ILL.—The Calumet Gas. Co. has been awarded a contract by the South Park Board for installing 95 arc lights and for furnishing the power for five years on Garfield Boulevard, from State St. to West St.

MARINETTE, WIS.—We are informed that the Marinette & Menominee Electric Co., noted last week, is being organized, and upon the perfection of the same it will begin the improvement of the water powers for electrical transmission of power to those places. It will take 30 days to perfect organization. Plans have not yet been completed. Chas. B. Pride, Hydraulic Engr. and Arch., Appleton, Wis., and G. W. Hanley, Marinette, may be addressed.

WAUWATOSA, WIS.—Bids were ordered by the County Clerk until Jan. 18 for constructing a plant for lighting various county institutions.

LAKE CITY, IA.—M. H. Fisher, Elec. Engr., Lake City, writes us that Geo. G. Fisher has secured a 20-year franchise for lighting the streets and houses of this place with electricity, and also the contract for pumping the water. Machinery of about 100 HP. capacity will be installed. Correspondence is solicted.

HARTINGTON, NEB.—A. B. Gable, Chn. Village Bd., writes us that plans and specifications are on file with R. G. Muson, Cy. Clk., for furnishing and installing a 750 light plant, to be operated in connection with the water-works. Bids are being asked.

HITCHCOCK, S. DAK.—B. F. Gray is reported as making arrangements for the proposed plant for this place of about 1,000 people.

MILLER, S. DAK.—The question of a plant is reported as under consideration. Population, 900.

GALLATIN, MO.—Bids are asked until Feb. 10 for constructing a plant and water-works, as described in our advertising columns. Engr., Geo. Cadogan Morgan, New York Life Bldg., Chicago; Mayor, I. Mann; Cy. Clk., H. Y. Tarwater.

PERRIN (CLINTON CO.), MO.—L. M. Shoemaker & Co., Bloomington, Ind., are reported to have applied for a franchise. Population, about 150.

OAKLAND, CAL.—The supervisors are reported as considering an ordinance calling an election to vote on the question of issuing $150,000 in bonds for a plant. Supervisor Girardis may be addressed.

SALT LAKE CITY, UTAH.—Allan G. Lawson, Pres. Salt Lake City Water & Electrical Power Co., writes us that a 4,000 HP. plant is under consideration. The power will be transmitted to Bingham and Mercur. R. M. Jones and W. F. Shelton are interested.

SILVER CITY, IDAHO.—John Tardiff, Elec. Engr., Silver City, is reported as arranging for the construction of a plant.

THAMESFORD, ONT.—Cowper Bros., Thamesford, write us that they are considering the advisability of putting in a plant at their factory for private use. They may put in one to light the town provided sufficient encouragement is given.

TORONTO, ONT.—Press reports state as follows: Wm. Hogg, Beaverton, Ont., who owns a water power at Eugenia Falls, on the Beaver River, Grey county, 90 miles north of Toronto, offers to sell it to the city for $50,000. He claims that 4,400 HP. can be derived from the Eugenia Falls, which could be transmitted to Toronto. Assistant City Engineer Rust is of opinion that the falls could be used to good advantage for power purposes if possessed by the city.

NEW COMPANIES.—Colp, Arnold & Co., Carterville, Ill., to operate an electric light plant; $25,000; John Colp, H. G. Arnold, Monroe Colp.

Hightstown Electric Light & Power Co., Hightstown, N. J.; Francis C. Thorn, Delanco; Charles P. Fitch, Beverly Mostard, Theodore Mostard, Philadelphia.

East Side Lighting Co., Los Angeles, Cal.; $100,000; W. A. Willis, J. A. Winnana, W. J. Washburn, C. E. Carver.

Lawrenceville Light & Water Co., Lawrenceville, Ill.; $25,000; M. S. Lipscomb, F. C. Spring, G. E. Engstrom.

Standard Light & Power Co., Dallas, Tex.; $100,000; Emmette A. Ellis, L. Ashton, C. H. Alexander.

Columbus Power Co., Columbus, Ga.; $200,000. The company owns the Lovers' Leap water-power north of the city and will at once construct a stone dam and erect a plant for furnishing electric power for manufacturing plants. Pres., H. M. Comer; Treas., G. Gunby Jordan; directors, J. F. Hanson, John Hill.

Jersey Shore Electric Co., Jersey Shore, Pa.; $30,000, with $3,000 paid in; Treas., A. H. Squire, Tunkhannock, Pa.; directors, C. H. Hill, Williamsport, Pa.; J. M. Gorman, Wilkes-Barre.

South Milwaukee Light & Power Co., South Milwaukee, Wis.; the company has purchased the plant of the old South Milwaukee Electric Light & Power Co. and it is stated will make extensions; H. M. Green, Milwaukee.

Indian River Co., Glens Falls, N. Y.; $15,000; to build a reservoir at Indian Lake, to be used for storage of the waters of the upper Hudson, to supply manufacturers; Pres., William McEchron, Glens Falls; Vice-Pres., John H. Derby, Sandy Hill, N. Y.; Secy. and Treas., W. E. Spier, Glens Falls; Mgr., George F. Underwood, Ford Edward, N. Y.

Citizen's Light & Power Co., Downingtown, Pa.; $12,000; Dr. T. E. Parke, Guyon Miller, J. D. Carpenter, Jas. R. Gordon, G. C. M. Eicholtz.

BRIDGES.

ALBANY, N. Y.—Reports state that a bill will be introduced by Senator Lamy for a new bridge over the canal at Erie St. to cost about $50,000, and in the meantime to have a temporary structure built.

BUFFALO, N. Y.—A committee has been appointed by the South Buffalo Business Men's Association, according to reports, to consider the question of constructing another bridge over the Buffalo River, at Hamburg St.

NEW YORK, N. Y.—Local papers state that Assemblyman John J. Cain will introduce a proposition to construct a railway bridge at an estimated cost of $10,000,000, to connect South Brooklyn with the Battery by way of Governor's Island.

NEW YORK, N. Y.—Reports state that bids will soon be advertised for the construction of the steel towers for the New East River bridge, according to plans by L. L. Buck, Ch. Engr.; estimated cost, about $750,000.

COHOES, N. Y.—A company composed of James S. Clute, John H. Murphy, Wm. T. Ford, John Scanlon, of Cohoes, N. Y., and Edwin W. Marvin, Troy, with a capital stock of $40,000, has been organized to construct a bridge having iron or stone piers over the Mohawk River, at Dunsbach Ferry, according to reports.

SYRACUSE, N. Y.—Bids are asked until Jan. 28 for the construction of a lift bridge over the Erie Canal at Salina. St. Geo. W. Aldridge, Supt. Pub. Wks., Albany.

UTICA, N. Y.—Bids are asked until Jan. 28 for the construction of lift bridges over the Erie Canal at Whitesboro St. and at Broad St. Geo. W. Aldridge, Supt. Pub. Wks., Albany.

CONNELLSVILLE, PA.—It is reported that a new bridge will be constructed in the spring at an estimated cost of ——— over the present structure of the Baltimore & Ohio R. R. at Yough River. A committee consisting of President Marietta, Burgess Bryner, Councilman Hyatt and Stillwagon have been appointed to decide upon the plans and specifications submitted by the Yough'ogheny Bridge Co.

FREDERICK, MD.—It is reported that a bridge to cost about $12,000 will be constructed at Stull's Ford, across the Monocasy River.

CLEVELAND, O.—Reports state that Engineer Pratt of the Park Board, is preparing plans for a new bridge at the entrance of Edgwater Park and Waverly Ave., to be constructed of stone with steel girders.

PIQUA, O.—It is reported that the county commissioners are considering the question of constructing a low bridge over the canal at Ash St., provided that the city will pay $250 for removing the old structure.

INDIANAPOLIS, IND.—Reports state that the board of public works has rejected the bids received Jan. 7 for repairing the Washington St. bridge. B. J. T. Jeup, Cy. Engr.

OTTUMWA, IA.—The following bids were received Jan. 10 for constructing two steel bridges 800 ft. and 600 ft. long, respectively, over the Des Moines River. Thos. F. Keefe, Chn. Bridge Com.:

	Vine St. bridge.	Blackhawk bridge.
Farnsworth & Blodget, Kansas City, Mo.	$39,000	$25,100
Clinton Bridge & Iron Wks., Clinton, Ia.	37,550	22,650
N. M. Stark & Co., Des Moines, Ia.	39,100	23,350
Lafayette Bridge Co., Lafayette, Ind.	37,200	23,000
J. R. Shealey & Co., Des Moines, Ia.	35 750	22 500
Gillette-Herzog Mfg. Co., Minneapolis.	36.128	22,044
Kansas City Bridge Co., Kansas City, Mo.	38,880	24.247
Milwaukee Bridge Wks., Milwaukee, Wis.	36.219	21,998
G. E. King Bridge Co., Des Moines, Ia.	36,745	22,416
Bellefontaine Bridge Co., Bellefontaine, O.	38,000	22,200
Massillon Bridge Co., Massillon O.	37,149	22,145
Wrought Iron Bridge Co., Canton, O.	36,960	22,115
*Fair-Williams Bridge Co., Ottumwa.	35,240	21,180

*Awarded contract for both bridges.

AITKIN, MINN.—Press reports state that this place contemplates the construction of a steel bridge next summer 64 ft. long, with a 20-ft. roadway across Mud River to replace the Knox bridge.

CROOKSTON, MINN.—Bids are asked until Jan. 25 for constructing a wooden bridge 160 ft. long and 18 ft. wide across the Poplar River at King, according to reports. John Gleason, County Audr.

MANKATO, MINN.—Bids are asked by the county supervisors until Feb. 2 for constructing an iron bridge over the Little Cobb River at Beauford according to reports.

STAPLES, MINN.—Reports state that this place has raised about $2,000 for the construction of a bridge across Crow Wing River, north of here.

YORK, NEB.—Bids are asked until Feb. 16 for all the bridges to be constructed in York county during 1898. J. D. White, County Clerk.

LARAMIE, WYO.—Bids are asked until Feb. 1 for constructing three bridges, according to reports. Henry L. Pascall, County Clk.

BUCKLEY, WASH.—Reports state that bids are to be asked for constructing a wood and steel bridge, 180-ft. span, at an estimated cost of about $5,500. T. Ryan, Chn.; F. O. Wickerson, County Comrs.

OLYMPIA, WASH.—It is reported that Savage & Schofield have been awarded a contract at $3,600, for constructing a steel combination bridge, 200-ft. span, across the Chehalis River.

SANTA ROSA, CAL.—The county supervisors have passed a resolution for a bridge to be placed at Hill's Crossing some time during this year.

SHERBROOKE, QUE.—The Dominion Bridge Co., Montreal, Que., submitted the lowest bid, at $8,386, for constructing an iron bridge over the St. Francis River to replace the Aylmer bridge, according to reports.

TILSONBURG, ONT.—Bids are asked until Jan. 20 for the superstructure of a bridge for the Tilsonburg, Lake Erie & Pacific Ry., over Otter Creek at this place. John H. Teall; James A. Bell, C. E., St. Thomas.

BUILDINGS.

SOUTH PORTLAND, ME.—The restaurant and casino building at Willard Beach, owned by C. J. Willard, was burned, Jan. 17, causing a reported loss of $48,500.

WORCESTER, MASS.—Cutting, Bardwell & Co. have been awarded the contract for erecting a new 5-story building for A. S. Lowell & Co.; estimated cost, $75,000. Archs., Earle & Fisher, State Mutual Bldg.——Fuller & Warren Co. has been awarded the contract for installing a heating apparatus in the new Ward St. School Building, at $1,350.

AMSTERDAM, N. Y.—The hardware store of Ray J. Morgan was recently burned, causing a reported loss of $40,000; fully insured.

BUFFALO, N. Y.—We are informed that the owners of the Hotel Iroquois will add four stories to their building and alter the ground floor at a cost of $100,000. Arch., August C. Esenwein, 707 Mooney Bldg.

BUFFALO, N. Y.—The following bids were received by Charles Whitney Tillinghast Adj-Gen., Albany, N. Y., Dec. 30, for constructing the new 74th Regiment Armory building, as partially noted in our issue of last week:

Bids Received at Buffalo, N. Y., Dec. 30, for Constructing the New 74th Regiment Armory Building.

Bidder.	All brick.	Sandstone —trimmings— Portage.	Berea.	Brick backing— All amethal.	Berea stone.	P'tsd'm. stone.	Medina stone.	Portage stone.	Warsaw stone.	Rifle range.
[1]J. Clarke's Sons, Chicago	$286,000	$289,850	$285,200	$336,850	$346,100	$354,300	.....	.....	.....	$1,975
A. Friederich & Sons, Rochester	307,777	.....	305,924	375,554	.....	381,154	$396,154	.....	.....	3,263
H. Schaefer's Sons, Buffalo	312,831	312,831	312,131	360,543	371,543	.....	.....	.....	.....	3,681
Jauret A. Tilden, Buffalo	359,706	359,706	359 206	399,186	406,524	426,236	.....	.....	.....	3,000
Brown, Staple & Griffith, Buffalo	326,000	327,000	324,800	336,000	.....	.....	359,000	.....	.....	3,400
Charles Moses, Chicago, Ill.	372,000	371,800	371,500	393,500	.....	.....	.....	.....	.....	1,975
John Lapnen, Buffalo, N. Y.	353,493	.....	.....	.....	.....	.....	406,593	$408,326	.....	3,956
G. W. Carver & Sons Co., Buffalo	298,000	.....	296,000	337,500	.....	.....	458,000	298,000	$298,000	3,500
Chas. Berick's Sons, Buffalo	304,585	.....	303,685	320,585	.....	.....	[2]335,585	304,585	303,685	3,481
Joseph Churchyard, Buffalo	314,674	.....	.....	320,414	313,911	358,171	.....	314,674	313,911	2,500
John Harrer, Buffalo, N. Y.	330,250	330,750	327,250	351,250	350,250	.....	360,750	.....	327,050	2,750
P. J. Carlin, Brooklyn, N. Y.	344,787	344,787	344,037	366,472	387,472	.....	.....	392,472	.....	1,750
[3]McArthur Bros., Chicago, Ill.	394,744	394,744	394,000	423,744	423,744	.....	448,744	.....	.....	3,000
[3]Prescott, Buckley & Kelley	379,000	379,000	367,000	.....	454,000	472,000	.....	482,000	364,000	2,500

*Awarded contract. Bids of Pottsdam standstone trimming: [1]$288,810; [2]$394,744; [3]$375,000.

NEW YORK, N. Y.—Plans have been filed by Frederick Schuck, 18 St. Nicholas Place, for three 5-story brick flat buildings on 135th St., east of Amsterdam Ave., to cost $78,000. Arch., John Hauser, 1441 3d Ave; by N. L. Ottinger, 20 East 70th St., for a 6-story brick flat and store building at 92d St. and Madison Ave., to cost $60,000. Archs., S. B. Ogden & Co., 1031 Madison Ave.; by Fay & Stacoin, 337 Pleasant Ave., for three 6-story flat buildings at 28 to 34 Pitt St., to cost $72,000. Arch., Charles Rentz, 153 4th Ave.; by the Central Realty Co., 320 Broadway, for a 6-story brick factory building on Mercer near Prince St., to cost $80,000. Archs., Neville & Bagge, 217 West 125th St.; by T. J. Jenkins, 55 Lenox Ave., for three 5-story brick flat buildings on 125th St., west of Amsterdam Ave., to cost $78,000. Arch., W. Cunningham, 55 Lenox Ave.; by Hallahan & Ahearn, for a 7-story brick flat building at 109th St. and Central Park West, to cost $250,000. Archs., Neville & Bagge, 217 West 125th St.; by Alexander Walker, 872 West End Ave., for a 7-story brick flat and store building, to cost $150,000. Arch., G. F. Pelham, 503 5th Ave.; by Samuel Aaronson, 261 Henry St., for a 6-story brick flat and store building at Bayard and Mott Sts., to cost $50,000. Archs., Schneider & Herter, 48 Bible House.——Hugh Getty, 247 9th Ave., is said to have been awarded the general contract for erecting a new church building on 122d St., near St. Nicholas Ave., for the Fourth Reformed Presbyterian Church. Arch., Jas. W. Cole, 403 West 51st St.——Plans have been prepared, according to reports, for a brick and terra cotta church building for the Dutch Reformed Church, of Washington Heights, at Convent Ave. and 145th St., estimated to cost $125,000. Pastor, Dr. Chas. B. Chapin; Archs., Hill & Turner, 44 Broadway.

JERSEY CITY, N. J.—The board of trustees of the Free Library, of which Dr. L. G. Gordon is president, has requested the board of finance of this city to issue $150,000 in bonds for the erection of a new library building on Jersey Ave., from Montgomery to Mercer Sts.

NEWARK, N. J.—Frank P. Hill, Secy. Newark Public Library Assn., informs us that plans for the new library building, to be erected on Washington St., will probably not be completed for six weeks. Archs., Rankin & Kellogg, 1024 Walnut St., Philadelphia, Pa.

ALLENTOWN, PA.—Bids are asked until Feb. 1, according to reports, for erecting the new hospital for the Hospital Assn. of Allentown; estimated cost, $45,000. Arch., Seymour Davis, 907 Walnut St., Philadelphia, Pa.

McKEESPORT, PA.—Reports state that plans and specifications are being received by the city officials for a new municipal building to cost about $50,000.

McKEESPORT, PA.—The Yester Block, on 5th Ave., was destroyed by fire, Jan. 17; loss on building, $100,000.

MEMPHIS, TENN.—The following bids were accepted Dec. 30 for work on the new high school building; A. B. Hill, Secy. Bd. Education: For general contract, A. Eberhart, 28 Robeson St., Memphis, $34,142; for mason work, Anderson & Richartz, Memphis, $18,027; for plumbing and gas fitting, McGrath & Goodrich, 235 2d St., Memphis, Tenn., $1,166.

PHILADELPHIA, PA.—Stacey, Reeves & Son, 1611 Filbert St., are reported as having been awarded the contract for erecting the new 5-story addition, 75 x 200 ft., at 8th and Market Sts., to the building occupied by Strawbridge & Clothier, clothiers. Arch., Addison Hutton, 400 Chestnut St.——Machin & Brown have been awarded the contract for the construction of a 7-story brick and steel store building at 731 and 733 Arch St., for J. & L. Baxter, 731 Arch St.; estimated cost, $50,000.

SPRINGFIELD, MD.—The directors of the Second Hospital for the Insane are preparing a bill for the legislature providing for an appropriation of $250,000 for the erection of new buildings at this place. Supt., Dr. Geo. H. Rohe.

HAGERSTOWN, MD.—H. M. Boward, Architect, Fairground Ave. and Locust St., writes us that the people of this town are contemplating the erection of a new library building, to cost about $20,000. Edward W. Mealey, of Hagerstown, has already agreed to give a lot for the new building.

SAVANNAH, GA.—Bids are asked by the commissioners of Chatham county until Feb. 10 for the erection of a tower to the county jail. County Clk., Jas. W. McIntire; Archs., ...chberg and Witcover.

CLEVELAND, O.—Music Hall, which was erected in 1885, at a cost of $60,000, was destroyed by fire on Jan. 14. The seating capacity of the hall was about 7,000.

TOLEDO, O.—Bids are asked until March 7 for the purchase of $90,000 of 4% school bonds.

INDIANAPOLIS, IND.—Bids are asked by the board of public works, Court House bldg., until Jan. 26, for the construction of two greenhouses in Garfield Park.

HILLSDALE, MICH.—The supervisors of Hillsdale county Jan. 7 decided to submit at the spring election a proposition to issue $45,000 in bonds for the erection of a new court house.

CHICAGO, ILL.—Plans are being completed, according to reports, for a new apartment building to be erected at Madison St. and Spaulding Ave. for W. S. Gooding & Co., at a cost of about $75,000. Archs., Fowler & Hayes.——Plans have been prepared for two residences to be erected on Woodlawn Ave., near 47th St., at a cost of about $60,000. Archs., Pridmore & Stanhope, 1418 Champlain Bldg.——A 3-story brick and stone apartment building will be erected by Collins & Morris at 5956 and 5958 Prairie Ave., to cost $55,000. Arch., S. B. Eisendrath, 1439 Marquette Bldg.

MINNEAPOLIS, MINN.—Reports state that P. H. Demends, of Los Angeles, Cal., will rebuild or improve the Brunswick Hotel, at 4th and Hennepin Ave., at a cost of about $100,000.

DULUTH, MINN.—Bids will soon be asked for building the superstructure of the Orphans' Home at Woodland Park. Arch., G. E. Tenbush.

RED WING, MINN.—The question of constructing a new city hall or a new armory or one building in which both are incorporated is being actively discussed. A committee of three has been appointed, and they will submit their report to the city council at its February meeting.

WINONA, MINN.—The sum of $32,000 has been pledged by the citizens for constructing a new public hospital at Broadway and Olmstead St. The trustees have been instructed to have plans prepared and submit them to the hospital association directors.

APPLETON, WIS.—Plans have been accepted, according to reports, for the new Stevenson Science Hall, to be erected for the Lawrence University, at Appleton, at a cost of about $30,000. Arch., Henry Van Ryn, Jr., 36 Merrill Bldg., Milwaukee, Wis.

OMAHA, NEB.—It has been decided to erect an exposition building for the State of Georgia at the Trans-Mississippi and International Exposition. Plans and specifications are being prepared.——Bids from the following contractors were received Jan. 10 for building the colonnades connecting the Government Building with the Fine Arts and Agricultural buildings on the Exposition grounds: Asa Philpot, 2616 St. Marys Ave.; T. J. Lund, 3502 Seward St.; Wm. Goldie & Sons Co., Exposition grounds; Thos. Herd, New York Life Bldg.; R. C. Strehlon, 3813 Charles St.; Smith & Eastman, 1617 Pinkney St.; Alexander & Son, Memphis, Tenn., and Exposition grounds, all of Omaha.

HELENA, MONT.—Plans and specifications are asked by the capitol commission until Feb. 8 for a new capitol building, to cost within $275,000, and to contain 65 rooms, exclusive of halls, vaults, etc.

MISSOULA, MONT.—Bids are asked by the Montana State University Building Commission until Feb. 10 for the construction of two buildings, to be known as "Science Hall" and "University Hall." Arch., A. J. Gibson, Missoula.

FORT LOGAN, COLO.—The following bids were received Dec. 29 for constructing a double set of officers' quarters: Frank Taylor, Denver, Colo. (accepted), $11,583; J. R. McDonald and John Vaughn, Denver, $12,292; Thompson & Helm, Denver, $12,550; G. W. Atkinson & Son, Colorado Springs, Colo., $12,089; Walter King, Denver, $14,893; H. Herbert Toogood, Denver, $12,760. The contract for plumbing the same was awarded to E. J. McNamara, of Denver, at $1,293, and for the steam heating, to H. M. Michael, of Denver, at $1,350.

SEATTLE, WASH.—The following bids were received Jan. 5 for constructing the Noyes Building, at Madison St. and 1st Ave.:

Causey & Carney	$54,989
Spurr & Wilmot	52,520
J. C. Redwood	57,900
J. R. Addison	52,686
Nicholas & Crothers	44,800

LOS ANGELES, CAL.—George Law has been awarded the contract for erecting a new 6-story building at 2d St. and Broadway for Chas. H. Frost, at $30,900.——It is reported that the merchants of this city contemplate the erection of a building to comprise 20 or 25 stores for the accommodation of commission merchants; estimated cost, $750,000.

MADERA, CAL.—Bids are asked by the supervisors of Madera county until March 8 for the construction of a jail building in Hugh's Addition, Madera. Clk., C. J. Eubanks.

SAN JOSE, CAL.—It is reported that Z. O. Field has been awarded the contract for the construction of the new theatre building for the Phelan Estate, at about $30,000.

STOCKTON, CAL.—Bids are asked until Feb. 8 for the heating, ventilation and sanitation of the county court house of San Joaquin county. County Clk., Otto Grunsky.

WILLOWS, CAL.—Bids are asked by the commissioners of Glenn county until Feb. 9 for the erection of a county hospital building.

WATER-WORKS.

HALLOWELL, ME.—C. G. Wall, Water Comr., writes us that in November the city laid 6,200 ft. of 6-in. pipe from the source of supply to the reservoir. Nothing further will be done until spring or early in the summer. The city has issued $50,000 in bonds for further improvements and extensions, as noted in our issue of Dec. 30.

BLACKSTONE, MASS.—At the recent town meeting the people decided to appropriate $12,000 for securing a water supply for better fire protection for Millville. Two miles of pipe and a number of hydrants will be required. C. R. Day, Chn. Com.

ENFIELD, MASS.—The residents at a recent town meeting decided not to instruct the selectmen to ask the legislature for permission to construct works to cost about $17,500. E. A. Ellsworth, Engr., Holyoke, Mass., had submitted estimates.

CHAFEE, N. Y.—The Chafee Water-Works Co. has been incorporated, with a capital stock of $2,000, to supply Sardina. The plant was built in 1897 and only a short extension will be made. W. L. Perkins, R. L. Willis and F. E. Eddy are interested.

CHURCHVILLE, N. Y.—The question of a water supply for a better fire protection is reported as being considered.

LANSINGBURG, N. Y.—John Flynn, Pres. Water Comrs., writes us that the town authorities are preparing a bill asking the legislature to grant the town permission to build two reservoirs and to lay 4½ miles of 12 and 14-in. pipe, to cost about $100,000. Work will probably be begun in the spring. W. C. Staley and Wm. M. Lea, water commissioners.

MOUNT KISCO, N. Y.—Bids are asked by the water commissioners until Feb. 1 for constructing works to cost about $25,000.

VAILSBURG, N. J.—The question of issuing $40,000 in bonds for works will be voted upon Feb. 23, according to reports. Mayor Maybaum may be addressed.

BEN AVON, PA.—It is reported that this place will apply to the owners of the works at Bellevue and Avalon to extend the plants to this place. John Johnson, Bellevue, may be addressed.

FAYETTE CITY, PA.—An election will be held Feb. 15 to vote on the question of issuing $12,000 in bonds for municipal works.

HELLERTOWN, PA.—An election will be held Feb. 15 to vote on the question of issuing $30,000 in bonds for a new water supply. R. N. Koplin, Secy.; F. F. Allen, Ch. Burgess.

JOHNSTOWN, PA.—A. H. Walters, Supt. Johnstown Water Co., writes us that the contract for furnishing 36-in. pipe for a four-mile extension to the Stony Creek supply has been awarded to the National Foundry & Pipe Works, Scottdale, Pa. The water company will lay the pipe. Population, 35,000.

PITTSBURG, PA.—Bids are asked until Jan. 25 for the purchase of $963,000 of water refunding bonds. H. I. Gomley, Cy. Controller.

TAKOMA PARK, D. C.—The committee is reported to have about completed arrangements to petition the legislature to grant the town authority to issue $40,000 in bonds for works, a sewerage system and an electric light plant. Major S. S. Shedd and Geo. A. Warren may be addressed.

ELKINS, W. VA.—An election will be held Jan. 25 to vote on the question of issuing $30,000 in bonds for works. Engrs., Pownall & Minshall, 150 Nassau St., New York. Councilman G. W. Harrison may be addressed.

DILLON, S. C.—R. S. C. Churchill, Editor "Herald," writes us that the question of works has not yet been brought before the council. W. F. Bethea, Intendant.

ROCK HILL, S. C.—W. O. Kitchion, Mayor, writes us that the people of this place voted Jan. 13 in favor of works. Bids will soon be received. Population, 3,000.

ABBEVILLE, GA.—T. F. Holton, Mayor, writes us that no steps have been taken in regard to securing works. A plant is needed and the authorities would like to make arrangements with responsible parties for putting in the improvement. Population, 1,500.

ATLANTA, GA.—Judge Geo. Hillyer, Pres. Water Bd., writes us that there is to be an election to vote on the question of issuing $200,000 in bonds for extending the mains. If bonds are voted for bids for pipe, valves, hydrants, etc., will be asked about April 15. Supt., Park Woodward; Cy. Engr., R. M. Clayton.

SANDERSVILLE, GA.—The question of building works and an electric light plant is being considered, according to reports. Population, 2,000.

MACON, GA.—We are informed that the Macon Gas Light & Water Co. has completed plans and awarded contracts for extending the works, as noted in our issue of last week. The money has been appropriated and the work is well under way. Receiver, T. O. Tinsley.

PALATKA, FLA.—Geo. E. Day, Mayor, writes us that the council will, in about a month, take up the question of issuing bonds for works. Estimated cost, $100,000.

SUMMIT, MISS.—Bids are asked until Feb. 1 for constructing works. Population, 2,000. Engrs., Alber & Byrne, 1821 Second Ave., Birmingham, Ala.; Mayor, J. B. Holden.

HAWKINSVILLE, ALA.—The construction of works and an electric light plant is reported as being considered. Population, 100. L. C. Ryan may be addressed.

CULLMAN, ALA.—J. H. Karter writes us that a 15-year franchise for works and a light plant has been granted to J. E. Clark, Cullman, and Chas. Temple, Grand Rapids, Mich. They must accept within 90 days from Jan. 14. The city will require 20 fire plugs and 14 arc lights, paying $15,000 a year. Each additional plug, $40.

MONTGOMERY, ALA.—Press reports state that the committee of the council has reported that W. B. Rice, the owner of the Capital City Water-Works Co.'s works has declined to reduce his price of $450,000 for the purchase of the plant, and the attention of the council now reverts to the building of municipal works. Nisbet Wingfield, 414 Norcross Bldg., Atlanta, Ga., has made an estimate, and asserts that a new and superior plant can be erected by the city for less than $400,000. The city offered $330,000 for Mr. Rice's plant. J. H. Clisby, Mayor.

BAY ST. LOUIS, MISS.—Richard Mendes, Secy. Council, writes us that the question of works, now before the courts, will probably be decided about the end of January. Population, 2,500.

DAYTON, TENN.—It is stated that plans and specifications will be prepared soon for works and other city improvements, to cost about $50,000.

ELMWOOD PLACE, O.—Bids are asked until Feb. 2 for furnishing cast iron water pipe, special castings, hydrants, valves, and for laying pipe and setting hydrants; estimated cost, $15,000. Consult. Engr., E. F. Layman, 32 E. Third St., Cincinnati; H. G. Schaeffer, Village Clk.

OAKLAND CITY, IND.—The works for this place will have two 750,000-gallon pumps, and the entire plant must be completed by Dec. 28. L. M. Shoemaker & Co., Bloomington, Ind., was granted a 10-year franchise, as noted in our issue of last week. Porter H. Lamb, Pres. Town Bd.

VEEDERSBURG, IND.—The council is reported to have awarded the contract for building works and an electric light plant to cost about $25,000.

ADRIAN, MICH.—Press reports state that the Adrian Water Co. was organized Jan. 13, with a capital stock of $200,000. Pres., Dr. F. E. Potter; Vice-Pres., Henry C. Smith; Secy. and Supt., W. H. Hand; Treas., B. E. Tobias. The policy declared by the company is that it will make immediate efforts to provide a better water supply.

SCHOOLCRAFT, MICH.—An election will be held Jan. 25 to vote on the question of issuing $16,000 in bonds for works and a light plant. G. M. Hudson, Mayor.

MILLEDGEVILLE, ILL.—The committee is reported as about to make arrangements for the proposed works to cost $7,000. Bids for sinking well for the supply were received Nov. 13. J. F. Greenwalt, Mayor; S. A. Smith, Clk.

NORMAL, ILL.—The council has directed Geo. Cadogan Morgan, New York Life Bldg., Chicago, to prepare plans and specifications for works to cost about $30,000. There will be required about 14 miles of mains. Bids will probably soon be asked. O. Seibert, Pres. Bd. Trustees.

OSHKOSH, WIS.—An election will be held April 12 to vote on the question of purchasing the works of the Oshkosh Water-Works Co., noted more fully in our issue of Dec. 16. The Real Estate Board favors the construction partly by the city and partly by private capital of new works for domestic purposes only, at a cost of about $100,000. A. B. Ideson, Mayor.

LAKE CITY, IA.—Geo. G. Fisher has secured a 20-year franchise for lighting the streets and business houses, and also for pumping the water. Correspondence is invited. M. H. Fisher, Elec. Engr., Lake City.

DULUTH, MINN.—At a special election held Jan. 12 the proposition to buy the plant of the Duluth Gas & Water Co. by the city for $1,250,000 in 5% bonds was carried by a majority of 2,130. Further information in regard to this matter will be found in our issue of Dec. 9. Henry Truetsen, Mayor.

HELENA, MONT.—About $36,000 will be spent on Fort Harrison during the coming year, according to reports. The water supply will be enlarged and a reservoir will likely be built, with a water-works for the private use of the post. Other additions and improvements will be made. Maj. F. E. Jones will have charge of the work.

GALLATIN, MO.—Bids are asked until Feb. 10 for constructing works and an electric light plant, as described in our advertising columns. Engr., Geo. Cadogan Morgan, New York Life Bldg., Chicago; Cy. Clk., H. Y. Tarwater; Mayor, I. Mann.

KEYTESVILLE, MO.—Jos. F. Hausman writes us that this place has no works nor is a plant proposed, as noted in our issue of last week. It is thought that the town would not be able to support one at present. Population, 1,500.

LIBERTY, MO.—This place is said to have voted on Jan. 4 against issuing $45,000 of 20-year 5% bonds for works and a sewerage system. W. O. Pitts, Recdr.

MARCELINE, MO.—H. V. Hinckley, Consult. Engr., Topeka, Kan., is reported as interested in the proposed works for this place.

ST. LOUIS, MO.—Bids are asked by Jas. Richardson, Comr. of Supplies, until Jan. 22 for furnishing f. o. b. St. Louis, five 20 × 3-in., 25 20 × 4-in., 10 12 × 3-in. and 12 12 × 4-in. branches and valves, etc. A. P. Smith patent; and by Robt. E. McMath, Pres. Bd. Pub. Improvements, until Jan. 28 for furnishing 250 tons of cast iron special castings, 250 fire plugs and 150 top parts and 285 6, 8, 10, 12 and 20-in. stop valves, etc. E. S. Foster, Secy. Bd.

ST. JOSEPH, MO.—The St. Joseph Water Co., which was recently granted a franchise in South St. Joseph, will at once begin extending its plant, according to local papers. Supt., L. C. Burnes.

HOT SPRINGS, ARK.—An ordinance is before the council authorizing the purchase of the works of the Hot Springs Water Co. or of constructing new works. Population, 10,000.

PORT LAVACA, TEX.—Judge A. W. Parkham and Henry Brightwell, Port Lavaca, are said to be interested in the proposed works for this place, noted in our issue of Jan. 6.

BOULDER, COLO.—Wm. Babcock, Boulder, writes us that nothing has yet been done further than preliminaries, in regard to the proposed works of the Overmont Water & Power Co.

EVANS, COLO.—The mayor writes us that no appropriation has been made for works, reported as being considered in our issue of last week.

STERLING, COLO.—A citizen's committee has been appointed to consider plans for works. C. M. C. Woolman, J. C. Aiken and A. G. Sherwin are on the committee.

SPOKANE, WASH.—Otto A. Wiele writes us that the contracts for laying a new 24-in. steel riveted water main four miles long and for furnishing a 5,000,000-gallon pump will be let in April or May. Estimated cost of pipe, $70,000.

SWANSEA, ENGLAND.—Bids are asked until Feb. 1 for constructing a masonry dam 100 ft. high and about 1,350 ft. long and a water-works tunnel about 14,310 ft. long, etc., for the Cray reservoir works. Consult. Engr., G. H. Hill & Sons, 5 Victoria St., Westminster, London, and Albert Chambers, Manchester; Res. Engr., R. H. Wyrill; Town Clk., Jno. Thomas.

JOHANNESBURG, TRANSVAAL, S. A.—Press reports state that this city, Bloemfontein and other important places in South Africa are either building works or about to do so.

IRRIGATION.

COLUMBUS, NEB.—Reports state that the Great Eastern Canal Co. will get its water from the Beaver River, which carries about 11 cu. ft., to irrigate the land lying between Genoa and Columbus, and if the supply is insufficient the company will tap the Loup River.

GUTHRIE, OKLA.—It is reported that the Cain Irrigation Co. has been chartered to put in irrigating canals and ditches from the Cimarron River.

BEAUMONT, TEX.—Reports state that the citizens of this place are contemplating the construction of an irrigation canal, at an estimated cost of about $40,000, to reclaim thousands of acres in Jefferson county for rice culture. The land of the proposed route has been surveyed, and pumps having a capacity of 24,000 gallons a minute will be installed. A committee, consisting of W. A. Ward, G. C. O'Brien, O. B. Greeves, J. B. Broussard, Guy W. Junker, John B. Goodline, has been appointed.

NEW COMPANIES.—Crowley Irrigation Co., Crowley, La.; $16,000; has purchased the Bayou Blanc Canal Co. and will install one or two additional pumps and extend the canal across Bayou Blanc, a distance of five miles, to irrigate several hundred acres; George Ferrie, Dalton City, Ill.; Jas. R. Roller, W. W. Duson, John W. Roller, Peter H. Dorr, A. B. Longenbaugh, Crowley, La.

Larimer & Weld Water Supply Co., Denver, Colo.; $53,400; to construct ditches, laterals, etc. ex-Gov. Benj. H. Eaton, Bruce D. Easton, Aaron J. Eaton, A. D. Eaton, John E. Law.

Great Bend Farming, Stock, Land, Ditch & Mercantile Co., La Salle, Colo.; to construct three large reservoirs in Weld county, having a capacity of 276,000 cu. ft., 35,000,000 cu. ft., 11,000,000 cu. ft., respectively, by tapping of the La Platte River, for the purpose of cultivating the land and raising stock; W. G. Brown, Pres.; H. G. Clark, Secy.

Enterprise Canal & Land Co., San Francisco; $5,000,000; with $2,500 paid in; M. B. Howard, J. F. Holling, F. W. Brown, George W. Lunt, M. Boehm, San Francisco.

SEWERAGE.

NASHUA, N. H.—A. W. Dean, Cy. Engr., writes us that nothing has been done as yet in regard to additional sewers, paving, etc.

CAMBRIDGE, MASS.—It is proposed to spend about $60,000 this year on improving the system.

SOUTHBRIDGE, MASS.—Plans and a report of the proposed system have been submitted to the board of trade by Selectman Calvin Claftin.

TAUNTON, MASS.—J. W. Fish, Mayor, writes us that the council of 1897 appropriated $83,500 for the construction of the Cobb Brook trunk sewer, which will be a part of the complete system adopted by the council. The work will be done under the direction of the board of sewerage commissioners.

BUFFALO, N. Y.—The following bids were received by R. G. Parsons, Secy. Bd. Pub. Wks., Jan. 12, for constructing 30 to 12-in. pipe and 92 × 74 to 33-in. brick sewer in Abbott Road: John Harrer, $89,000; William H. Kinch, $98,243; Henry P. Burgard, $103,437; Henry Kebbin, $115,558; John Mumm, $120,000; Christopher Smith, $115,689; William Luther & Co., $108,731; William Franklin, Jr., $98,850; George Dark and Thomas Dark, Jr., $106,400; Ritzmann & Miller, $108,977; Brown, Stabell & Griffiths, $95,873; William A. Rappich, $98,710; Andrew Beaser, $98,237.

NORTH TARRYTOWN, N. Y.—David Silver, Village Clk., writes us that a special election will be held Jan. 25 to vote on the question of appropriating $18,000 for sewers.

OSWEGO, N. Y.—Fred D. Wheeler, Cy. Clk., writes us that only the plan showing proposed route and probable cost of the projected trunk sewer, noted in our issue of Dec. 31, has been submitted by F. W. Ormsby, Cy. Engr.; estimated cost, $32,000.

ROCHESTER, N. Y.—It is proposed to construct sewers in four streets at a cost of $12,000. T. D. Pulver, Cy. Clk.

ASBURY PARK, N. J.—It is stated that the proposed system for Ocean Grove, West Park, West Grove and the various hamlets scattered throughout Neptune Township will not be built this year, owing to the apathy manifested by the property-owners of the township. The petitions circulated under the direction of the Township Committee, calling for a sewer system to cost $100,000, were signed by comparatively few property-owners, and so much opposition was encountered that the committee at its last meeting decided to recall them. In all probability the township committee will endeavor to secure legislation whereby sewers can be built without the formality of securing the signatures of those owning one-half the taxable property in a community.

CAMDEN, N. J.—Bids are asked until Jan. 21 for constructing sewers in Haddon Ave. H. C. Sharp, Chn. Com.

JERSEY CITY, N. J.—We are informed that it is proposed to build 2,200 ft. of 54-in. steel pipe sewers, of which 850 ft. is on upland with average cut of 8 ft., the rest will be in the meadow on pile foundation; 700 ft. of 30-in. pipe, average cut, 7 ft., 500 ft. of 18-in. pipe, average cut, 9 ft., and 530 ft. of 30-in. brick sewer, average cut, 9 ft.; estimated cost, $30,000. Surveys of the route have been finished. The levels on the meadow and at the railway crossings are not yet taken. F. E. Ferris, 20 City Hall, Surveyor in Charge.

VAILSBURG, N. J.—An election will be held Feb. 23 to vote on the question of issuing $30,000 in bonds for connecting and using the South Orange system.

CAMBRIDGE, MD.—Mayor James has recommended the construction of sewers at a cost of $5,000.

GLENDALE, O.—Cincinnati papers state that the 15 villages in the Millcreek Valley, between St. Bernard and Glendale, are about to take action in regard to securing a system of drainage.

YOUNGSTOWN, O.—City Engineer Lillie has submitted estimates for a sewer in Falls Ave., to cost about $3,500.

INDIANAPOLIS, IND.—Bids are asked until Feb. 2 for constructing main and intercepting sewers in a number of streets. M. A. Downing, Chn. Bd. Pub. Wks.—B. J. T. Jeup, Cy. Engr., has recommended the construction of sewers in several streets.

NORMAL, ILL.—Bell & Melluish are reported to have been directed to prepare plans and specifications for a system for the Soldiers Orphans' Home. Bids will probably soon be asked.

COLUMBUS, NEB.—Press reports state that a company is being organized to build and operate a system in this place. When $5,000 has been subscribed arrangements for work will be made. City Surveyor Gottschalk may be addressed.

LIBERTY, MO.—This place voted Jan. 4 against issuing $45,000 in 5% 20-year bonds for the proposed system and water-works. W. O. Pitts, Recdr.

ST. LOUIS, MO.—It is proposed to construct sewers in the Warren Ave. sewer district, at a cost of about $24,500. B. H. Colby, Sewer Comr.

SPOKANE, WASH.—Otto A. Wiele, Cy. Engr., writes us that contracts will be let in April or May for constructing 25,000 ft. of 24 to 12-in. pipe sewers; average cut 12 ft.; estimated cost, $45,000.

LOS ANGELES, CAL.—City Engineer Dockweiler is reported by local papers to be preparing a report on the proposed improvement of the system to cost about $300,000. Councilman Baker may be addressed.

GUELPH, ONT.—The mayor has recommended that a committee be appointed to consult with the city engineer in regard to plans for a system.

JOHANNESBURG, TRANSVAAL, SO. A.—Press reports state that $10,000,000 will be spent on constructing a system of roads for this city. Of this amount $3,000,000 will be used at once on the system.

GARBAGE DISPOSAL—STREET CLEANING

CAMBRIDGE, MASS.—The finance committee is considering the question of appropriating money for the purchase of a garbage crematory.

NEW HAVEN, CONN.—Bids are asked until Jan. 20, for removing the garbage of the city. Ward Bailey, Clk. Health Bd.

ROCHESTER, N. Y.—Local papers state, that on account of the failure of the Wayneport garbage reduction plant of the Flower City Reduction Co., Hascal A. Hogel, a member of the company, and the receiver, proposes to build a new plant.

BIRMINGHAM, ALA.—Dunn & Lallande Bros. submitted the lowest bid, Jan. 10, for removing garbage from the city at $379 a month for the period from Feb. 1, 1898, to June 31, 1899. C. M. Burkhalter & Co. have the contract at present, their bid this year being $600 a month. W. J. Pearce, Chn. Com.

DAYTON, O.—The board of city affairs has directed the city comptroller to ask for bids for removing the garbage, ashes, etc.

YOUNGSTOWN, O.—Bids are asked until Jan. 24 for the purchase of $15,000 of 5% garbage disposal plant bonds. Bids are asked until Jan. 22 for furnishing and erecting the plant, as advertised in Engineering News, from Dec. 23 to Jan. 13. F. C. Brown.

LAFAYETTE, IND.—Bids are asked until Feb. 14 for constructing a garbage disposal plant, etc., as stated in our advertising columns. Thos. W. Burt, Cy. Clk.

OMAHA, NEB.—Bids are asked until Feb. 2 for furnishing the city with one to eight street sweeping machines. Wm. Coburn, Secy. Advisory Bd., Room 403 City Hall, Omaha.

JOHANNESBURG, TRANSVAAL, SO. A.—The town committee is reported to have decided to build a garbage crematory at a cost of about $105,000.

STREETS AND ROADS.

BURLINGTON, VT.—Bids are asked until Feb. 9 for constructing drainage, etc., about 5,320 lin. ft. of 8-in. macadam road, 18 ft. wide, at Fort Ethan Allen. Capt. Guy Howard, Asst. Quartermaster, U. S. A., Burlington.

BOSTON, MASS.—Reports state that estimates have been presented to the council for paving Norfolk Ave. at $29,300 from Magazine to Cottage St. The Citizen's Improvement Association of Brighton are considering the question of a boulevard through the Nonantum Valley to be known as the Westmount Boulevard.——Reports state that H. P. Nawn has been awarded a contract at $38,042 for constructing the Columbia Road from Stanwood St., a distance of 3,263 ft., to be 110 ft. wide, of macadam surface and Telford base.

SWAMPSCOTT, MASS.—Bids are asked by the Massachusetts state highway commission, 4 Mount Vernon St., Boston, until Jan. 20 for constructing about 5,450 ft. of state highway in this place.

EASTON, PA.—A proposition has been submitted to the grand jury, according to reports, for the improvement of the highway between Easton and Martin's Creek, which is estimated to cost about $19,848.

SCRANTON, PA.—Reports state that the council has passed a resolution for repaving and widening Carbon St., to 40 ft., from Penn Ave. to Lackawanna River, and the following estimates have been received: For asphalt, $7,590; for brick, $5,965. E. F. Blewitt, Cy. Engr.

TARENTUM, PA.—Reports state that the question of issuing $55,000 in street and sewer bonds will be submitted to a vote at the election Feb. 15.

FAIRMONT, W. VA.—Reports state that at the next election a proposition will be voted upon for paving Water St. from the suspension bridge to the Morgantown Pike, by the issuing of $10,000 in street improvement bonds.

SEVIERVILLE, TENN.—Press reports state that $35,000 has been appropriated by the county commissioners for the construction of a pike to join the Knoxville Pike.

MOUNT VERNON, O.—Bids are asked until Jan. 22 for improving portions of 20 streets with gravel. P. B. Chase, Cy. Clk.; A. Cossil, Cy. Engr.

NORWOOD, O.—Bids are asked until Jan. 24 for the purchase of $3,307 of 6% street bonds. W. E. Wichgar, Cy. Clk.

MILWAUKEE, WIS.—Reports state that the property-owners along the lake shore are discussing the question of the proposed boulevard from Mason St. to the North Point pumping station.

CINCINNATI, O.—Reports state that a contract has been awarded to Reubel Bros., at $30,326, by the board of aldermen, for improving Delta Ave.

ST. PAUL, MINN.—The board of public works favors a proposition for a boulevard along the river on the west side of the city, from Delos St. to Smith Ave., and the city clerk has been ordered to prepare estimates.

GRAIN VALLEY, MO.—It is reported that the county commissioners have been requested to extend the macadam road through this place to Lone Jack.

KANSAS CITY, MO.—The board of public works has recommended the paving of the Southwest Boulevard from Main St. to the State line, a distance of two miles, with either brick or asphalt; also 24th St., a distance of half a mile, from Southwest Boulevard to Fairmount Ave. Henry A. Wise, Cy. Engr.

HOUSTON, TEX.—Bids are asked until Jan. 31 for paving Buffalo St. from Preston Ave. to Engelke St. H. B. Rice, Mayor.

SEATTLE, WASH.—Reports state that a contract has been awarded to M. Dow & Co., at $4,569, for replanking Second Ave., from Yesler way to Jackson St.

SANTA CRUZ, CAL.—Bids are asked until Jan. 22 for filling, grading, etc., on the Watsonville and Santa Cruz Road, in front of Garretty Place. Edward Martin, Cy. Clk.

NELSON, B. C.—Local papers state that a petition is being circulated among the owners along Crawford, Hooker and Canyon Creeks, requesting the government to appropriate $10,000 for a road to be constructed from Crawford Bay to Canyon Creek, a distance of 12 miles.

GUELPH, ONT.—Press reports state that the mayor has proposed that the city buy a steam road roller and a stone crusher.

JOHANNESBURG (TRANSVAAL), SO. A.—It is reported that the town council has decided to secure a loan of about $10,000,000, a part of which will be used for constructing and improving the roads, the remainder being for a sewerage system.

MANUFACTURING PLANTS.

BRUNSWICK, ME.—Reports state that the Brunswick Construction Co. is contemplating the erection of an additional foundry to its plant.

WALTHAM, MASS.—We are informed that Davis & Farnum, builders of gas plants, iron foundries, etc., will rebuild their foundry at this place, at once, which was recently destroyed by fire; estimated cost, $18,000. The Waltham Screw Co. expects to enlarge its factory in the early spring. B. S. Tolman may be addressed.

DEPOSIT, N. Y.—It is reported that the Webb Pearl Button Co., whose plant was burned last month, will erect a new building, 90 × 30 ft., with several additions. Geo. F. Benton, Business Mgr.

AMBLER, PA.—The Keasby & Mattison Co., according to reports, are preparing to enlarge its works at Ambler.

EMAUS, PA.—The Donaldson Iron Co., manufacturers of iron pipe for water and gas and special castings, informs us that it has not yet decided to extend its foundry plant. Plans have merely been made with a view of doing so in the future, if trade and circumstances warranted the expenditure. Reports stated that the erection of four new pits and an additonal plant, 50 × 86 ft., was contplated.

EPHRATA, PA.—It is announced that the silk mill at this place will be enlarged by the erection of a 3-story brick building, 44 × 94 ft. It is said that the present number of looms, 116, will be doubled.

SCOTTDALE, PA.—The Shiffler Bridge Co., of Pittsburg, has received another contract for the erection of a rolling mill at this place.

SCHENECTADY, N. Y.—Press reports state that the General Electric Co. is preparing plans for a new iron foundry, 500 × 130 ft., to be built in this city. It is also said that the advisability of removing the branch lamp works, at Harrison, N. J., to Schenectady, is being considered.

SALEM, PA.—W. Henry Dunn and Wm. H. Mitchell are said to contemplate the erection of a new silk mill here, to be owned by a number of Carlisle capitalists; estimated cost, $50,000.

ATLANTA, GA.—The Hawley Down Draft Co. is reported as having decided to build a furnace manufacturing plant in Atlanta, at a cost of about $100,000. Treas., Samuel T. Bleyer, Chicago, Ill. The Dixie knitting mill in this city, said to be the largest hosiery factory in the State, was destroyed by fire, Jan. 17, causing an estimated loss of $15,000. S. A. Magill is reported as saying that the mill will be rebuilt and that the capacity will be quadrupled.

BIRMINGHAM, ALA.—The Southern Iron & Steel Works is erecting a new plant, including a machine shop, foundry and other buildings. Machinery for the manufacture of structural and ornamental iron work will be negotiated for.

FLORENCE, ALA.—J. C. Rea & Co., of Columbia, Tenn., will soon erect a flour mill in Florence to have a daily capacity of 100 bbls., according to reports.

LOUISVILLE, KY.—Work has been begun on the new 5-story brick building to be erected as an addition to the National Tobacco Works at 18th St. and Broadway.

LINWOOD, O.—It is reported that R. H. Le Blond will build an engine house, 140 × 145 ft., at this place. Engr., R. I. Henshaw.

SANDUSKY, O.—The Sandusky Valley Mills, at the foot of West Mansfield St., were destroyed by fire, Jan. 7, Pres., Lemon Andrews; Secy. and Treas., W. C. Kiess.

GRAND RAPIDS, MICH.—Rindge, Kalmback & Co., shoe manufacturers, contemplate the erection of a new building, about 100 × 100 ft., at Fulton, Ionia and Louis Sts. Plans are now being prepared, and it is expected to build this season.

BAY CITY, MICH.—Press reports state that the Michigan Sugar Co., Jan. 13, closed a contract with the International Engineering Co., of Chicago, to erect the buildings and furnish the machinery for the plant in this city. The main building will be 100 × 270 ft., of brick, and running from 3 to 4 stories in height. There will be four beet sheds, 30 × 30 ft. in size and one-story high.

MARENGO, ILL.—Marengo capitalists have incorporated the Marengo Sugar of Milk & Creamery Co., with a capital of $50,000. F. W. Patrick, who owns many creameries, is said to be back of the project, and the plan is to start a plant for the manufacture of crude and refined sugar from milk.

TWO HARBORS, MINN.—P. W. Agnew, Chippewa Falls, Wis., will erect a sawmill 8 miles west of Two Harbors, with a capacity of 3,000,000 board feet a season, according to reports.

SHAWNEE, TEX.—The Shawnee Oil Mill & Gin Co. has been organized, with capital stock of $100,000, to build a cottonseed oil mill, with a daily capacity of 100 tons. Among those interested are: E. P. Bomar, P. S. Witherspoon, C. C. Hemming, F. R. Sherwood, of Gainesville, Tex.; E. W. Kirkland, J. Taylor Bradley, W. T. Peoples and J. T. McKinstry, of Shawnee.

GAS PLANTS.

AKRON, O.—Reports state that the Akron Gas Co. has about decided to issue $400,000 in bonds for the improvement of its plant.

ALBION, MICH.—Reports state that the Messrs. Freese, of this place, have been visiting a number of towns in search of a franchise to establish a gas plant, at a cost of about $30,000.

KALAMAZOO, MICH.—Press reports state that E. P. Cadwell, Chicago, of the Kalamazoo Gas & Electric Co., has stated that $75,000 will be spent in the construction of a new plant which will have a capacity of 2,000,000 cu. ft. of gas a day.

NEW COMPANIES.—Water Gas Heating Co., Norfolk, Va.; $25,000.

County Fuel Co., New Brighton, Pa.; $1,000; to produce, store and transport natural gas; W. G. Bert, Treas.; C. A. Barker, F. G. Barker, New Brighton.

Brilliant Gas Light Co., Newark, N. J.; $5000,000, with $1,000 paid in; to manufacture appliances and apparatus for the production of light, heat and power, either chemical, electrical or mechanical; D. W. Brand, New York; Adam E. Schatz, Mt. Vernon, N. Y.; Fritz A. Fieldkamp, Newark, N. J.

Relief Gas Co., Washington, Pa.; $20,000, with $2,000 paid in; to supply, pipe and transport natural gas; David Iseman, Treas.; David Sterrett, W. R. McIlvane, Washington.

Homestead Gas Co., Homestead, Pa.; $1,000; to manufacture and supply gas; A. O. Ackard, Treas.; John F. Cox, Geo. Gladden, Hugh Elliott, Homestead.

Electroline Mfg. Co., Cleveland, O.; $15,000; to manufacture electroline; J. C. Meader, John E. Day, John J. Greenway.

MISCELLANEOUS CONTRACTS.

PNEUMATIC PIPE SYSTEM.—Cincinnati, O.—The board of legislation has recommended to grant a franchise to Thomas A. Quill for constructing a pneumatic pipe system in the streets.

HARBOR IMPROVEMENT.—Sheboygan, Wis.—Reports state that the U. S. engineers will make a survey of the harbor to ascertain the amount of work required in deepening and extending the piers.

HIRE OF DREDGE.—Mobile, Ala.—Bids are asked until Feb. 15 for the hire of a dredging plant for the Mobile River and Bay, as stated in our advertising columns. Maj. W. T. Rossell, U. S. Engr., Mobile.

VAULT REFITTING.—Waukegan, Ill.—Bids are asked by the county supervisors until Mar. 7 for refitting the vault in the county court house at this place. Address, W. H. Dodge, 136 Washington St., Waukegan.

PIER.—Atlantic City, N. J.—Frank A. Souder, 120 N. Tennessee Ave., has been awarded a contract to construct the new pier at this place according to plans prepared by J. H. Williams, 1107 Walnut St., Philadelphia.

SHORE PROTECTION, ETC.—Fort Morgan, Ala.—Bids are asked until Feb. 15 for constructing shore protection at Fort Morgan, Mobile Point, Ala., as stated in our advertising columns. Maj. Wm. T. Rossell, U. S. Engr., Mobile.

CULVERT WORK.—Syracuse, N. Y.—Reports state that Geo. W. Aldridge, Supt. Pub. Wks., Albany, has awarded to Martin & Barlow, Seneca Falls, N. Y., a contract, at $4,510, for repairing culverts Nos. 78 and 94 on the Erie Canal.

NAVAL SUPPLIES.—Mare Island, Cal.—Bids are asked by the navy department until Feb. 8 for furnishing iron blocks, sheet brass, copper, pig iron, sheet lead, steel, screws, etc. Edwin Stewart, Paymaster Gen. U. S. Navy, Washington, D. C.

SUBWAY.—Chicago, Ill.—Alderman Powers has introduced an ordinance in the council, in which it is proposed to construct an underground subway system between Michigan and Ashland Aves. and Division and 22d Sts., at an estimated cost of about $20,000,000.

PORT.—Buenos Ayres, Argentine.—Bids are asked until Jan. 31 for the construction of the military post at Belgraro, Bahia Blanca, to cost about $10,000,000. Proposals may be sent to the Legation of the Argentine Republic at London, Washington, D. C., or the Minister for Commerce, Buenos Ayres.

SHIP CHANNEL.—Houston, Tex.—Reports state that a bill has been introduced by Congressman Ball, asking for an appropriation of $4,000,000 for a water channel from the mouth of the jetties at Galveston, Tex., through the present ship canal and up Buffalo bayou to Houston, and for a harbor at or near the city of Houston.

SEA WALL.—Boston, Mass.—The following bids were received Jan. 12 for the construction of a sea wall on Dorchester Ave. Extension at Washington Ave.; Wm. Jackson, Cy. Engr.:

William J. Lawler, Boston	**$10,454**
W. H. Ryan, Boston	11,048
Ross & Fowler, Ipswich and Northbridge	11,542
G. E. Trumbull, Boston	13,039
W. L. Miller & W. H. Ellis, Boston	13,769
Benj. Young, Chelsea, Mass	14,300

CAPE TOWN, CAPE OF GOOD HOPE, SO. A.—Press reports state as follows: South Africa promises considerable activity in harbor work, as well as in railway construction and municipal undertakings. At East London, Cape Colony, and Durban, Natal, there are also big schemes of harbor improvements. The most remarkable event in this connection is said to be the determination of the Portuguese Government to undertake the proper development of Delagoa Bay. A sum of $5,000,000 is to be spent in opening up the port; $1,500,000 is already obtainable to make purchases. It is asserted that manufacturers of machinery and engineering material would do well to keep a keen lookout upon the requirements of the South African market.

CONTRACT PRICES.

WATER PIPE.—New Britain, Conn.—M. J. Drummond, 192 Broadway, New York, is said to have been awarded the contract by the water commissioners at $19.78 a ton for furnishing water pipe. About 10,000 ft. of pipe will be required.

LEVEE WORK.—Greenville, Miss.—W. E. Montgomery, Secy. Comrs., Greenville, informs us that John G. Sessions, Greenville, and John M. Chilton, Marysville, Miss., have been awarded the contract for constructing a levee near Honochitto Landing, Miss., at 20½ cts. a cu. yd.. The work will include about 100,000 cu. yds., of which 65,000 cu. yds. must be completed by March 1.

COUNTY ROADS.—Newark, N. J.—The following bids were received by Thos. McGowan, 800 Broad St., Newark, for improving roads in this county:

Bloomfield township, Franklin Ave.

Quantities.		Wright & Lindsley, Orange, N. J.	Whittaker Bros. Little Falls, N. J.	Daniels & Bunn, Lingae, N. J.
Grading	8,000 cu. yds.	$0.20	$0.31	$0.33
Paving	5,000 sq. yds.	.49	.78	.35
Total		$4,080*	$6,423	$4,409
Lovingston township, Walnut St.				
Grading	4,500 cu. yds.	$0.30	$0.20	.....
Paving	10,266 sq. yds.	.70	.42	.....
Total		$8,536	$5,212*	.....

* Awarded contracts.

MAIN SEWER.—Scranton, Pa.—J. P. Phillips, Cy. Engr., informs us that the following bids were received by councils Jan. 13, for constructing the 17th district main sewer in this city: Flanagan & O'Hora, $2.83 a ft. (complete), extra basins $85, manholes $40; V. H. O'Hora, $53,000 complete, extra basins $125, manholes $40; E. S. Williams, $48,000 complete, extra basins $100, manholes $60; Dunn Bros., $2.63 a ft. complete, extra basins $65, manholes $50. All the contractors are from Scranton. The engineer's approximate estimate of cost was $36,000. Average depth 11 ft., length of sewer, 700 ft. of 24-in. and 320 ft. of 36-in. cast-iron pipe, 370 ft. of 36 × 52-in. and 1,000 ft. of 40 × 60-in. brick, 4,000 ft. of 27 × 39-in. brick, or 30-in. terra cotta pipe, 1,660 ft. of 24-in. pipe, 570 ft. of 22-in. pipe, 770 ft. of 21-in. pipe, 1,590 ft. of 20-in. pipe, 1,040 ft. of 18-in. pipe, 170 ft. of 15-in. pipe, 380 ft. of 12-in. pipe, and 60 ft. of 10-in. pipe. Manholes, 65, basins 48. All pipes above 18-in. to be double strength.

ELECTRIC LIGHTING.—Appleton, Wis.—We are informed that the Appleton Electric Light & Power Co. will be awarded the contract Feb. 2, by the council, for furnishing 1,500-c. p. arc lights at $65 a year for five-year all-night service. Water power will be used, except in dry season, when steam will be the power. The Appleton Gas Light & Fuel Co. submitted a bid, but it was not considered, as it could not reach the points designated.

SEA WALL.—Richmond (S. I.), N. Y.—We are informed that the following bids were received by Lt.-Col. D.P. Heap, U. S. Engr., Tompkinsville, S. I., for furnishing the material and labor for constructing a sea wall at the U. S. general lighthouse depot, as advertised in Engineering News; there being available for the work about $24,000.

Bidder.	Price lin. ft.
G. B. Inman Contract Co., 27 Thames St., New York	$126.00
T. H. Riddle & Co., 35 Broadway, New York City	131.60
Samuel W. Frescoln, Reading, Pa.	179.00
Moore, Dudley & Hodge, 18 Broadway, N. Y. City	190.00
Frank Pidgeon, Saugerties, N. Y.	193.00
Toomey Bros., Guilford, Conn	197.39
James C. McGuire and Charles W. Hall, N. Y. City	199.90
Clark & Co., 100 Broadway, N. Y. City	208.50
Andrew R. Baird, 38 Hooper St., Brooklyn, N. Y.	227.00
Benjamin F. Jones, 147 E. 25th St., N. Y. City	240.00
The Crescent Construction Co., N. Y. City:	
With granite	359.70
With Sandy Hill limestone	328.50

WATER PIPE.—Minneapolis, Minn.—The following bids were received by the water department Jan. 14 for furnishing cast-iron water pipe for the season of 1898; the first amount payable July 1, and the second amount on July 1 and November 1:

Bids Received at Minneapolis, Minn., Jan. 14, for Furnishing Cast-Iron Water Pipe During 1898.

Bidder.	6-in. cast-pipe, 354.7 tons.	Pipe. 8-in., 58.5 tons		12-in., 256.5 tons.		16-in., 468.8 tons.		Total at first price.
Addyston Pipe & Steel Co., Cincinnati, O.	$19.65	$19.65	$20.00	$19.65	$20.00	$19.65	$20.00	$22,372
Michigan Peninsular Car Co., Detroit	19.93	19.93	20.30	19.93	20.30	19.93	20.30	22,690
Dennis Long & Co., Louisville, Ky.	17.74	17.74	17.92	17.74	17.92	17.74	17.92	20,197
Howard-Harrison Iron Co., Bessemer, Ala.	18.35	18.35	18.60	18.35	18.60	18.35	18.60	20,891
Ohio Pipe Co., Columbus, O.	17.74	17.74	17.94	16.99	17.19	16.99	17.19	19,653
Chattanooga (Tenn.) F'dry & Pipe Works.	17.58	17.58	17.94	17.58	17.83	17.58	17.83	20,015
R. D. Wood & Co., Philadelphia, Pa.	21.00	21.00	.....	21.00	.....	21.00	.....	23,909
South Pittsburg (Tenn.) Pipe Works.	20.00	20.00	.....	20.00	.....	20.00	.....	22,770

CEMENT, STONE, ETC.—Fort Monroe, Va.—We are informed that Capt. Thos. L. Casey, U. S. Engr., Norfolk, Va., received the following bids Jan. 11 for furnishing cement, stone, etc., as advertised in Engineering News: American Cement—Lawrence Cement Co., 1 Broadway, New York, 82 and 72 cts. a bbl.; New York & Rosendale Cement Co., 280 Broadway, New York, 89 9-10 cts.; Lawrenceville Cement Co., 26 Cortlandt St., New York, 95 cts.; R. H. Hood, St. Paul Bldg., New York, 74 cts.; Warner, Moore & Co., Richmond, Va., 90 cts. Portland Cement—Atlas Cement Co., 143 Liberty St., New York, $2.21 a bbl.; R. H. Hood, $2.10; Sinclair & Babson, 143 Liberty St., New York, $2.35; Warner, Moore & Co., $2.15. Two-in. broken stone—McClenahan & Bro. Granite Co., Port Deposit, Md., $1.79 a cu. yd.; Chas. G. Smith & Son, Washington, D. C., $1.77; R. H. Hood, $1.50; John L. Ginn, Philadelphia, $1.88; Peter Donald & Son, Richmond, Va., $1.83; Warner, Moore & Co., $1.88. One-in. broken stone—McClenahan & Bro., $1.79 a cu. yd.; C. G. Smith & Son, $1.88; R. H. Hood, $1.70; J. L. Ginn, $1.88; R. Donald & Son, $1.83; Warner, Moore & Co., $1.88. Granolithic broken stone—McClenahan & Bro., $1.79 a cu. yd.; C. G. Smith & Co., $2.40; R. H. Hood, $2.00; J. L. Ginn, $3.25; Donald & Son, $1.83; Warner, Moore & Co., $2.00. Yellow pine lumber, total—Jackson Heffelfinger, Hampton, Va., $617; R. H. Hood, $680, C. H. Bull & Co., Norfolk, Va., $608; Manhattan Supply Co., 160 Duane St., New York, $1,180.

INDUSTRIAL NOTES.

THE MINNEAPOLIS HYDRULIC CEMENT CO., Minneapolis, Minn., is reported to be erecting a new factory at 15th and John Sts., which will have a capacity of 250 bbls. a day.

THE ROGERS LOCOMOTIVE WORKS, Paterson, N. J., has received an order for 15 locomotives, according to report, for the International & Great Northern Ry. of England.

DIETZ, SCHUMACHER & BOYE, machine tool builders, of Cincinnati, have completed their new building, and having purchased the necessary machinery, etc., will occupy it about Feb. 1.

THE RICHMOND LOCOMOTIVE & MACHINE WORKS, Richmond, Va., has received a contract from the Canadian Pacific Ry. for 15 compound consolidated locomotives, according to report.

FOLEY BROS., Gilfillan Bldg., St. Paul, Minn., have recently completed the construction of 35 miles of railway, with sidings, on the Crow's Nest Pass Ry., for the Canadian Pacific Ry., in the Northwest Territory.

THE EBBVALE STEEL CO., Wales, is reported to have obtained the contract for 15,000 tons of steel rails for the Government of New South Wales, Australia, on which a number of American mills bid recently.

MR. EUGENE LENTILHON, Assoc. M. Am. Soc. C. E., contracting and designing engineer for masonry, steel and timber construction, has removed his office from 5 Bowling Green to the Bowling Green offices, 11 Broadway, New York.

THE HOGAN BOILER WORKS, Middletown, N. Y., is reported to have recently received contracts for boilers aggregating 80,000 HP., amounting in cost to over $1,000,000. Mr. J. W. MacCormack is General Manager of the company.

STOWELL & CUNNINGHAM, Albany, N. Y., civil engineers, members Am. Soc. C. E., have been appointed Inspectors of the steel anchorages for the New East River Bridge, New York, by Mr. L. L. Buck, M. Am. Soc. C. E., Chief Engineer.

THE SCHULTZ BRIDGE & IRON CO., McKees Rocks, Pa., has the contract, according to report, for a large steel barge for the Interstate Transportation & Transfer Co., St. Louis, Mo., to be used in transporting freight cars across the Mississippi River.

THE MARYLAND STEEL CO., Sparrow's Point, Md., will ship over 3,000 tons of steel rails by the steamer "Bedouin" for Calcutta, to be used in the construction of the East Indian Ry., according to report. The company shipped 200 tons of rails to Jacksonville, Fla., Jan. 12.

THE BUFFALO BRIDGE & IRON WORKS, Buffalo, N. Y., are now making steel poles for electric railways which they recommend for their rigidity, pleasing appearance and moderate price. They also make all kinds of structural steel work for car barns and power houses.

THE VAN CHOATE ELECTRIC CO., Boston, Mass., has put its plant in operation for the manufacture of electrical apparatus. The plant consists of 12 structures of brick, stone and iron, equipped with the most improved modern machinery, operated by Harris-Corliss tandem compound engines.

G. D. & V. F. POHL, Ava, N. Y., machinists and gasoline engine manufacturers, have incorporated their business and the plant for the manufacture of gasoline engines will be moved to Vernon, N. Y. The capital stock is $20,000 and Mr. D. Barton Case, Vernon, has been elected Treasurer.

THE DE LA VERGNE REFRIGERATING MACHINE Co., New York, has recently closed a contract with the War Department of the U. S. Government for 26 Hornsby Akroyd patent safety oil engines for the purpose of electric lighting in the forts. About 250 of these engines are now in use by the government.

THE AMERICAN AIR-POWER CO., New York, has been organized with $7,000,000 capital stock, according to a press report, as a combination of the Hoadley-Knight and the Hardie air-motor companies. It is also said that 35 cars of the 28th and 29th St. lines are to be equipped with the Hoadley-Knight motor.

JAMES STEWART & CO., St. Louis, Mo., and Buffalo, N. Y., have the contract for the new factory for the Hamilton-Brown Shoe Co., of St. Louis. The building is 104 x 138 ft., stone foundation and fireproof construction. The entire contract amounts to about $250,000, which includes everything complete and ready for the machinery.

THE GENERAL ELECTRIC CO., Schenectady, N. Y., is reported to have an order for electrical equipment for De Beers mine, South Africa, the equipment including three 175 HP. tandem compound engines, two 50 K-W. six-pole compound dynamos of 220 and 115 volts respectively, a large switchboard and 12,000 ft. of large copper cable.

THE NATIONAL SWITCH & SIGNAL CO., Chicago, Ill., after Feb. 1 will remove the general correspondence and management of the company from Easton to the New York office, Room 1403, 43 Cedar St., and all correspondence except that directed to the Secretary, Treasurer and Purchasing Agent, should be directed to that address after the date mentioned.

THE BROOKS LOCOMOTIVE WORKS, Dunkirk, N. Y., has, according to report, about completed 92 carloads of locomotives, boxed in pieces, for Japan and Korea, of which 20 are for the Imperial Government Rys. of Japan, 12 for the Kiushiu Ry. and four for the Seoul-Chemulpo Ry. of Korea. These latter are the first ever sent to Korea and are for the first railway ever built in that country.

FRASER & CHALMERS, Chicago, have been awarded a contract for mining machinery to the value of $40,000, by Capt. Thomas Main, of the Treadwell gold mines in Alaska. These mines have been in operation for some years, and the contract calls for 520 stamps, with engines, air compressors, etc. The mines will then have 880 stamps at work, which is said to be the largest number at any one plant.

THE MIGHTY MITE STOVE CO., 314 Northern Office Building, Chicago, is introducing a folding stove, which forms a box 7 x 7 x 4 ins. when closed. It has been designed for the use of engineers in the field, for prospectors, hunters, etc., and is now being put on the market. The tank carries 3 pints of gasoline or kerosene, which is fed to the burner by air pressure produced by a rubber ball and tube, and this supply is sufficient for 9 hours continuous use. By folding the pipe to the burner, the supply is automatically shut off and the flame extinguished.

JACKSON & MOSS, Des Moines, Ia., civil and constructing engineers, are engaged in building water-works plants at several points in that state. During the past year they have built works at Dows, Elberon, Northwood, Scranton and Hartley and have extended the plants at Cedar Falls and Rockford. They are just completing at Scranton a 100-ft. steel tower, supporting a steel tank, 15 x 25 ft., of 40,000 gallons capacity, and at Northwood a 90-ft. steel tower with a 65,000-gallon pine tank. These towers are of a special design patented by the firm, who claims for them greater economy and efficiency than others.

THE AMERICAN HOIST & DERRICK CO., St. Paul, Minn., has recently shipped five car-loads of its machinery, including hoisting engines, derricks, etc., to the National Contracting Co., New York, to be used on the latter's contract for drainage work in the city of New Orleans, La. The former company has also recently made shipments of its hoisting engines and derricks to Tennessee and to Atlanta, Ga.; four hoisting engines to Yokohama, Japan, and the complete derrick plant for the new Chicago Post Office, the contractors for which are the McArthur Bros. Co., Chicago. Mr. Wood, Treas., advises our representative that they are very busy in all departments at present, and that among other contracts on hand is one for 15 motor carriages for the Ordnance Department, U. S. Army.

THE FLINT & WALLING MFG. CO., Kendallville, Ind., has established an Engineering Department and is now prepared to furnish estimates for designing and constructing all sizes of water supply systems for both railway and domestic purposes. Mr. H. H. Macomber is the Superintendent and Engineer. It has already built a number of complete water supply systems, among them being those at Scottville, Mich.; Centerville, Mich.; a railway supply system, Rome City, Ind.; Walkerton, Ind.; a water supply plant for a brewery, South Bend, Ind.; one each for the Orphans' Home, at Indianapolis, Ind.; and at Addison, Ill., and one for the Concordia Cemetery, Chicago. In most of these plants the supply is pumped to a tank mounted on a steel tower. The company carries a very complete line of tubular well tools, and reports that it is very busy at present, being obliged to run several of their departments day and night.

THE CONTINENTAL FILTER CO., 44 Wall St., New York, is now installing the water-filtering plant at the New York Athletic Club Building, Sixth Ave. and 59th St. The filters are to be located in the sub-basement, and the entire water supply of the building will pass through them before distribution. Their capacity will be 250 gallons a minute or 15,000 gallons an hour. Besides supplying the entire building, including the boiler consumption, the filters will in less than six hours fill the magnificent new swimming tank, which is 75 ft. long, 23 ft. wide and 9 ft. average depth. The contract for the water filters for the new Sherry Building, Fifth Ave. and 44th St., has also been secured by this company. This is the same system that is in use at the Astoria Hotel, New York, and is now also being installed at the New York Athletic Club Building, as above mentioned. The capacity of the filters for this building is 400 gallons a minute, or 575,000 in 24 hours if run continuously. No alum or other chemicals are used in the purification of water by the Continental system.

THE S. A. WOODS MACHINE CO., Boston, Mass., manufacturers of wood working machinery, have enlarged their business by the organization of a Car Department and have joined issue with the Carse Bros. Co., Chicago, for the manufacture of a line of special car building machines designed by Mr. David B. Carse, Gen. Mgr., and Mr. O. E. Ahlander, late Chief Designer of Greenlee Bros. & Co., Chicago. Mr. Carse is known to the railway and car-works trade as a practical mechanic well versed in the construction of cars. He has made a specialty of the lay-out of car shops, and recently planned the arrangement of machinery in planing mills of several works. He is the manager of this new department. Mr. J. B. Carse, his brother, is the Assistant Manager, with headquarters at 64 Wabash Ave., Chicago, and Mr. Ashlander is Superintendent of the department at the company's works in Boston. The company has recently equipped the new shops of the Consolidated Cattle Car Co., Corwith, Ill., and furnished machinery for the Middletown and Norwich, N. Y., shops of the New York, Ontario & Western Ry. The company is now building its newly designed hollow-chisel mortising and high speed boring machines for the Howell shops of the Louisville & Nashville R. R. and the Buffalo shops of the Lake Shore & Michigan Southern Ry.

THE WALKER COMPANY, Cleveland, O., is now building at its Cleveland works a 1,000 K-W. direct-connected generator for the Union Ry. Co. of New York. This, with the two now being completed for the Brooklyn Heights R. R. Co., will make three of these 1,000 K-W. machines finished in as many months. In addition to this generator for the Union Ry. the Walker Co. is building 40 double No. 4A street railway equipments for them. These equipments are to be fitted with the new type "S" solenoid blowout controller which has attracted so much attention. The current for these motors will be fed to the line from a Walker switchboard, now being built at the New Haven factory. The Metropolitan St. Ry., Kansas City, Mo., which is now operated by a 1,000 K-W. Walker generator, is about to increase its plant by the addition of a 1,200-K-W. generator, and as a contrast to these immense machines it may be mentioned that the company is building a 25 K-W. lighting generator for Mr. J. J. Astor's new yacht. The foreign shipments during the next few months will include 100 double No. 3S street railway equipments, with 200 controllers, for Dresden, Germany; 6 double No. 3N equipments with type "S" controllers, and two double No. 3N equipments. Besides these railway motors and accessories there will be one 150 K-W. belted railway generator with its switchboard and a 75 K-W. belted booster for Japan, also with a switchboard. This makes over 7,500 HP. in street railway motors alone that are being built at the Cleveland works.

NEW COMPANIES.—Steel Heddle Mfg. Co., Philadelphia, Pa.; $30,000, commencing with $3,000; to manufacture and sell steel heddles, etc.; Rudolph Kindig, Treas., 1200 Frankford Ave.; Directors, Charles Schaeppie, 110 Apsley St. and Albert Hellwig, Philadelphia.

Maryland, Pennsylvania & West Virginia Telephone & Telegraph Co., Frostburg, Md.; $1,000,000; Milton J. Baird, Pittsburg, Pa.; J. J. Hoblitzell, Keystone Junction, Pa.; J. M. Reynolds, Bedford, Pa.; Mr. Hastings, Frostburg, Md.

Enterprise Telephone Co., Excelsior Springs, Mo.; $30,000; J. C. and C. H. Opinger, R. H. Hood and others.

East Texas Telephone Co., Jacksonville, Tex.; $2,000; to construct and operate a telephone exchange and telephone line from Tyler to Shreveport, La., via Jacksonville, Rusk, Alto, Lufkin and Nacogdoches, with branch lines from Jacksonville to Henderson and from Jacksonville to Palestine; W. H. Sory, of Jacksonville; C. M. Pittman, of Nacogdoches, La.

Turner Engineering Co., Marion, O.; $100,000; to make and sell boilers, machinery, car trucks, and to construct and equip railways; George E. Turner, James C. Tobias, George B. Christian, William H. Schaffner, Frank Keeler, Warren G. Harding, George D. Copeland, Edward K. Uhler and Frederick Haberman.

Mack Paving Co., New York, N. Y.; $10,000; directors, John M. Mack, James M. Mack and Joseph P. Mack, of Philadelphia, Pa.; Arthur W. Sewall, Pittsburg, Pa.; A. J. Ross, Jersey City, N. J.; Paul Sheldon and C. J. Sullivan, New York.

American Motor Wagon Co., Portland, Me.; $1,000,000, commencing with $500; to manufacture and deal in motor wagons, motors, dynamos, batteries and other electrical appliances; directors, Henry N. Bates, Hyde Park, Mass.; Pres., Warren Hunt, Rockland, Mass.; David N. Ricker, Nahant, Mass.; Treas., Thomas E. Clary, Norwood, Mass.; Wm. A. Ingham, Lowell, Mass.

Pennsylvania Writing Machine Co., Pittsburg, Pa.; $1,000; to manufacture iron and steel; Treas., L. Kauffman, Pittsburg; Simon Kauffman, Allegheny, Pa.; Isaac Reese, Pittsburg.

Phillips Mfg. Co., Philadelphia, Pa.; $50,000, commencing with $30,000; to manufacture hardware and supplies in general; E. A. Phillips, W. W. Phillips, D. C. Davis and J. J. O'Rourke, of Philadelphia; H. J. Holt, Colwyn, Pa.

Canfield Clutch Co., Charlestown, W. Va.; $200,000, commencing with $50; to sell the Canfield Friction Clutch, etc.; F. C. Canfield, Brighton, Mass.; E. F. Stone, Lowell, Mass., Chas. E. Dudley and D. L. Spaulding, of Boston, Mass.; C. W. Stetson, Newton, Mass.

Aurora Arc Lamp Mfg. Co., Allegheny, Pa.; $1,000; to manufacture electric lamps, etc.; Treas., Frederick Klussman, Bennet, Pa.; Directors, Conrad Weber and William Irensee, of Bennet; A. Schohn, Pittsburg.

Streeter Grate Co., Charleston, W. Va.; $10,000, commencing with $50; to manufacture and deal in grates; E. L. Saurie, J. S. Barker, C. Summers, James McMullin and V. G. Martin, all of Charleston.

Sherred & French Co., Newark, N. J.; $10,000, commencing with $1,000; to carry on the business of engineers and machinists; to manufacture valves and water-works appliances; Morris R. Sherred and Alonzo Church, Newark; David W. French and Arthur K. Bonta, Hoboken, N. J.

Sidel Pedal Co., Pittsburg, Pa.; $60,000, commencing with $6,000; to manufacture iron and steel; Pres., N. L. Tener; W. L. Abbott, H. L. Trees and W. L. Merwin, Pittsburg.

Equitable Incandescent Gas & Lighting Co., New York, N. Y.; $5,000,000, commencing with $100; to manufacture and sell lighting appliances, etc.; D. N. Moxon and D. A. Davis, Brooklyn; W. D. Goldsborough, Geo. C. Cruse and W. H. King, New York.

Brass Foundry & Machine Co., Jersey City, N. J.; $6,000,000, commencing with $1,500; to operate foundries for casting iron, brass, steel, etc.; Rudolph Gutmann, Greenville, N. J.; Francis P. McManus, Jersey City; Adolph Zinn, Wm. F. Lapoole and Michael Gavin, New York.

Great Western Tailoring Co., Chicago; $500; William D. Schmidt, A. J. Guise, Jens H. Wood.